(No Model.)

A. O'BRIEN.

SANITARY CLOSET.

No. 456,678. Patented July 28, 1891.

Fig. 1

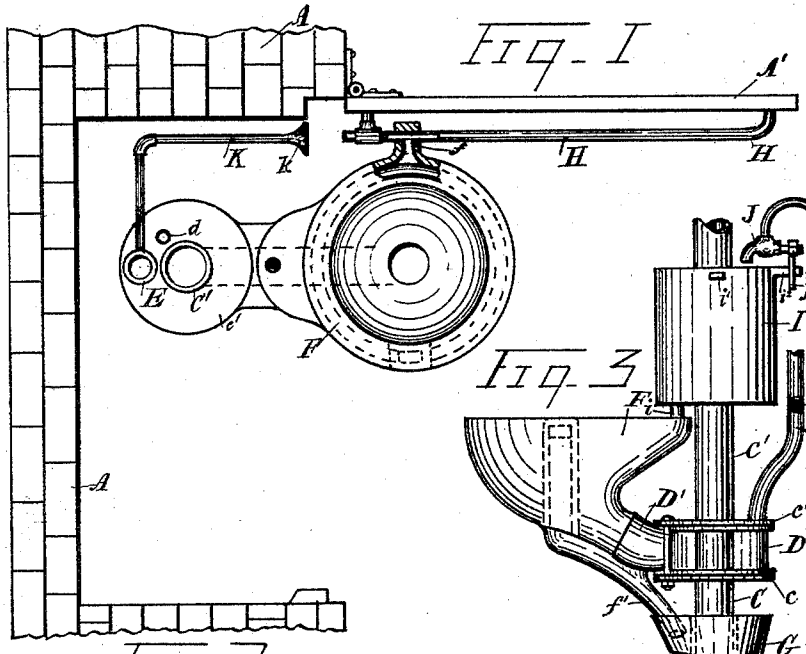


Fig. 3

Fig. 2

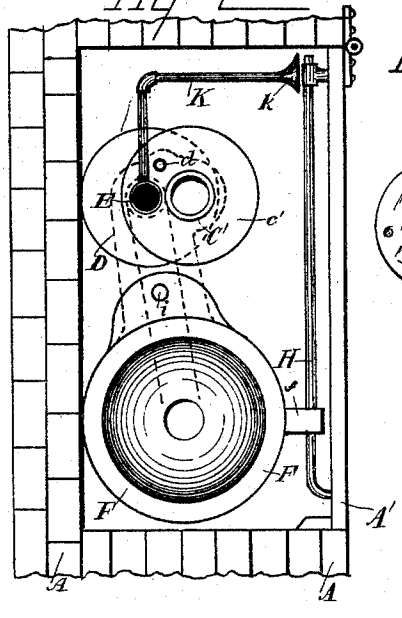


Fig. 6.

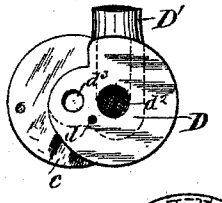


Fig. 4

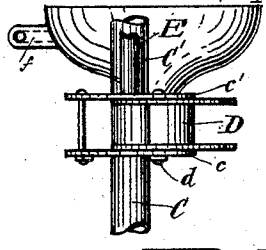
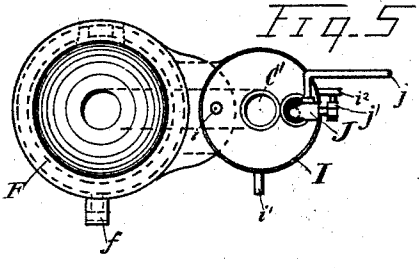


Fig. 5



Witnesses:
L. Stewart Davis
D. S. Oliver

Inventor:
Arthur O'Brien
By his Attorney Geo. J. Murray

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ARTHUR O'BRIEN, OF HELENA, MONTANA.

SANITARY CLOSET.

SPECIFICATION forming part of Letters Patent No. 456,678, dated July 28, 1891.

Application filed February 24, 1891. Serial No. 382,607. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR O'BRIEN, a citizen of the United States, and a resident of Helena, in the county of Lewis and Clark and State of Montana, have invented certain new and useful Improvements in Sanitary Closets, of which the following is a specification.

The object of my invention is to provide a sanitary closet for prisons, public buildings, and rooms in which the space is limited.

In consists in the combination and arrangement of parts hereinafter described, and illustrated in the accompanying drawings, whereby the closet may be inclosed in a small space when not in use, and when so inclosed is securely trapped, the soil-pipe and the closet-room properly ventilated, and communication between the soil-pipe and vent-pipe opened. When the door of the closet is opened, communication between the bowl and soil-pipe is made and a supply of water for flushing the bowl turned on. The closet is automatically thrown into either position for use or non-use by the opening or closing of the door.

I will give a detailed description of my invention and its mode of operation, referring to the drawings as occasion requires, and will then point out in the claims the features and combinations which I desire to cover by Letters Patent.

Referring to the drawings, in which like parts are indicated by similar reference-letters wherever they occur throughout the various views, Figure 1 is a horizontal section through a closet-room with the door open, showing my closet in position for use. Fig. 2 is a similar view with the door closed and the bowl and seat folded back. Fig. 3 is a view in side elevation of the bowl and its attachments in the position shown in Fig. 1. Fig. 4 is a detail view in rear elevation of the bowl, showing the position of the cut-off valve when the closet is in the position shown in Fig. 2. Fig. 5 is a plan view of the device as shown in Fig. 3. Fig. 6 is a plan view of the pivoted valve member which supports the bowl.

The views shown in Figs. 1 and 2 are taken on the plane of line $x\ x$, Fig. 3.

Referring to the parts, A represents the walls of the closet-room, and A′ the door for the same.

C C′ is a soil and vent pipe, which is rigidly secured in place. A portion of this pipe is cut out, and the opposite ends are fitted with brass flanges $c\ c'$. Between these flanges is fitted the brass bowl-supporting piece D, Fig. 6. The ends of this piece are dressed off true, as are also the adjacent faces of the flanges $c\ c'$, to form valve-joints between the ends of the piece D and the flanges. The piece D is eccentrically pivoted between the flanges by the bolt d, which passes through the flanges and piece D. The upper flange is also perforated to receive the lower end of the vent-pipe E. The piece D is centrally perforated at d^2 and eccentrically perforated at d^3. In the position shown in Figs. 1, 3, and 5 the central perforation registers with the soil and vent pipe C C′. The eccentric perforation d^3 registers with the soil-pipe C and vent-pipe E when the part D is in the position shown in Figs. 2 and 4. The piece D is also provided with a branch or socket D′, which communicates with its central perforation. The socket-opening is made flaring to receive the shank or discharge of the bowl F, which is firmly secured in it.

The body of the bowl, which may be of any approved form, is provided with an overflow which terminates in a pipe f'. This extends into a drip-pan G, secured around the soil-pipe C. The pan has a drain or waste pipe g, which may either connect to the soil-pipe or extend to the outside of the building.

To the inside of the door is secured a bar or pipe H, which passes freely through a lug f', which projects from bowl F. The bar thus assists to support the bowl and also to turn it to the position shown in Fig. 1 as the door is opened, or to the position shown in Fig. 2 as the door is closed. The lug f is of course made to slide freely upon the bar or pipe H as the door is swung in either direction.

The flushing-tank I is a sheet-metal cylinder provided with a central tube or cylinder, which fits loosely over the vent-pipe C′. Its bottom is firmly connected by a short pipe i with the flushing-rim of the bowl F. The top of the flushing-rim is concave and is perforated to receive water through pipe j through faucet J. The cock of the faucet is operated by a lever j', which depends downwardly in the path of two arms $i'\ i^2$, which project horizontally from the tank. The sup-

ply of water is turned on and off by means of these arms as the bowl is turned out for use or closed in, as shown in Fig. 2. In the position shown in Fig. 3 the arm i' has turned the faucet-lever j and opened the cock to turn a flow of water into the tank I. When the door is closed, as shown, Fig. 2, the arm i^2 will turn the lever j' of the cock in the opposite direction and close off the supply of water.

It will thus be seen that the operation of my device is entirely automatic and actuated by the opening and closing of the door A′.

To ventilate the closet-room when the door is closed, I provide a local vent-pipe K, which connects to the vent-pipe E above the valve D. This pipe is provided with a bell-mouth piece k; and to ventilate the bowl when the closet is in use the bar H may be made of tubing perforated upon one side near the hinge edge of the door to register with a chamber in the lug f, which communicates with the bowl F, as shown in broken section, Fig. 1.

I wish it understood that I do not limit myself to the exact form and construction shown, as many mere mechanical changes may be made without departing from the spirit or scope of my invention.

What I claim is—

1. In a sanitary closet, the rigid pipe C C′, having valve-flanges c c', the bowl, and its support D, pivoted to turn between the flanges, the part D being perforated to register with the soil-pipe when the bowl is turned for use and to close off the soil-pipe and register with the vent-pipe when the bowl is turned for non-use, combined and arranged substantially as shown and described.

2. The combination, as hereinbefore set forth, of the divided stand-pipe C C′, having valve-flanges c c', the support D, eccentrically pivoted between said flanges, the vent-pipe secured eccentrically upon the flange c, the bowl F, having discharge end to enter the support D, and perforated lug f, the closet A, door A′, and the bar H, secured upon the door and passing through said lug f, whereby the bowl is turned out for use when the door is opened and folded in when the door is closed.

3. The combination of the divided stand-pipe C C′, having valve-flanges c c', the support D, eccentrically pivoted between said flanges, the vent-pipe E, secured upon the upper flange, the bowl secured in support D, the flushing-tank I, fitted to turn around the pipe C, connected to the flushing-rim of the bowl and having arms i' i^2, and the faucet J, having dependent lever j' in the path of said arms i' i^2, whereby a flow of water is turned on when the bowl is turned out for use and turned off when the bowl is closed against use, substantially as shown and described.

4. The combination of the closet A and door A′, the bowl pivoted between the soil and vent pipes by valve connection and connected to the door, whereby connection is made to the soil-pipe when the door is opened and cut off when the door is closed, the flushing-tank fitted to turn upon the vent-pipe and connected to the bowl, the arms i' i^2, projecting from said tank, the faucet J, having dependent lever j' in the path of said arms, the drip-pan G, secured around the soil-pipe, the pipe f', leading from the bowl to said pan, the vent-pipe E, arranged to register with the soil-pipe when the closet is out of use, and the local vent-pipe K, connected to pipe E and having bell-mouth k, opening into the closet-room, substantially as shown and described.

ARTHUR O'BRIEN.

Witnesses:
JOS. H. BACON,
JOHN N. O'BRIEN.