

May 26, 1925.

1,539,255

D. GEORGE

SANITARY CLOSET

Filed July 27, 1921

2 Sheets-Sheet 1

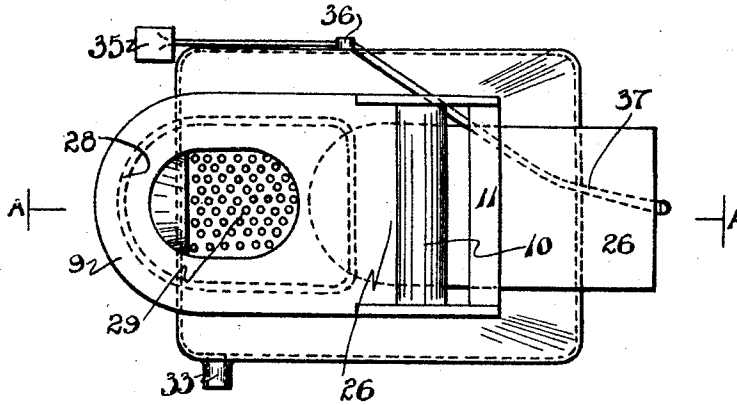


Fig. 1.

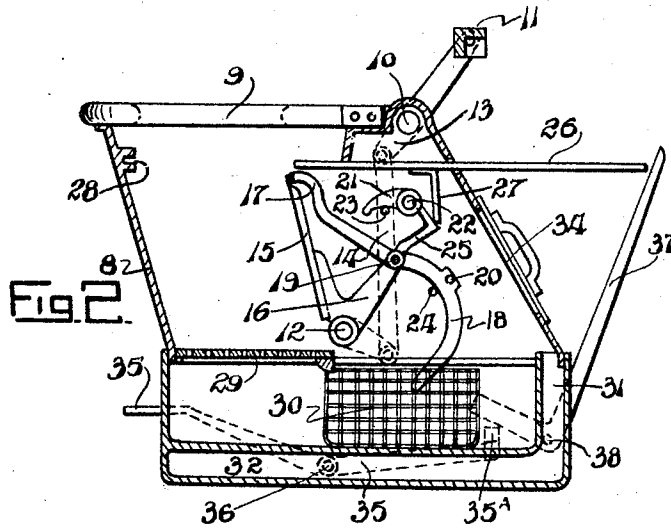


Fig. 2.

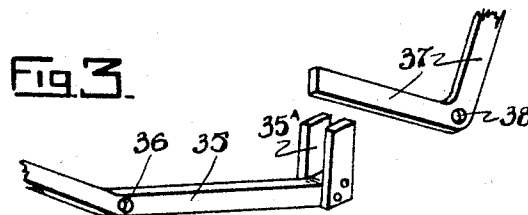


Fig. 3.

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By P. Snider, Atty

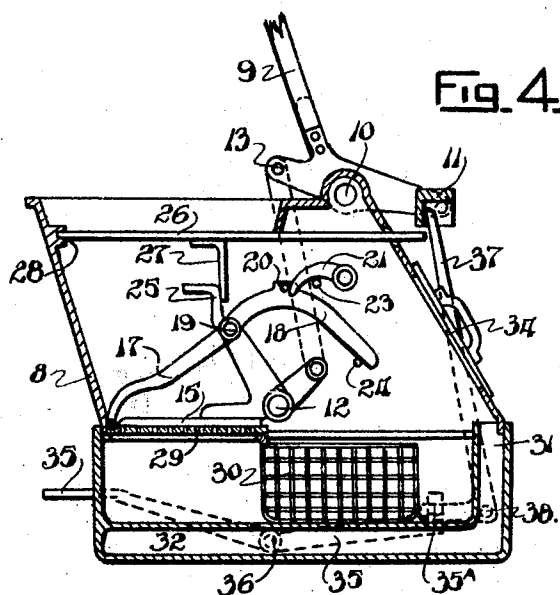
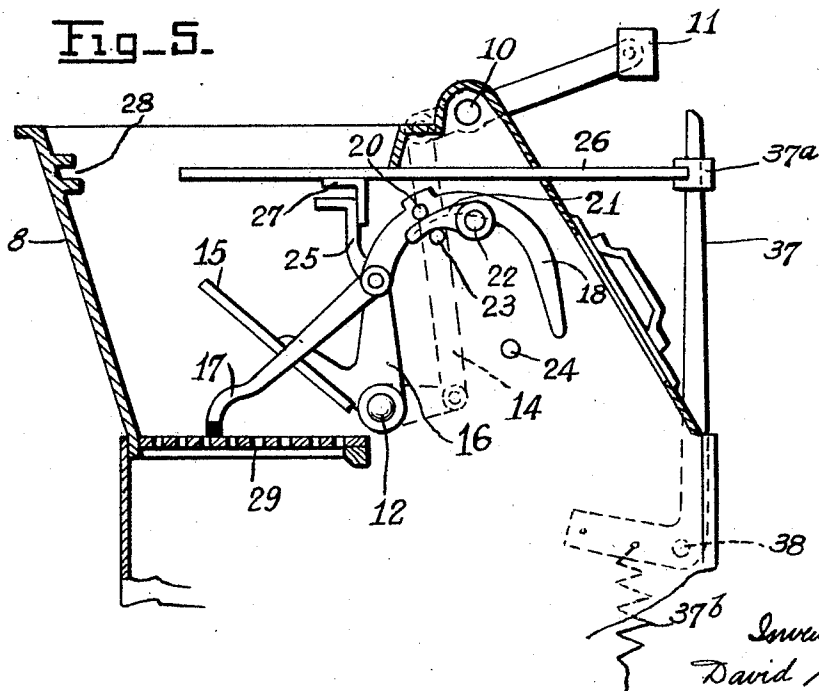
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2 Sheets-Sheet 2



Inventor.
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UNITED STATES PATENT OFFICE.

DAVID GEORGE, OF BURWOOD, NEAR SYDNEY, NEW SOUTH WALES, AUSTRALIA, ASSIGNOR TO SAMUEL AUBREY FRESHMAN, OF SYDNEY, NEW SOUTH WALES, AUSTRALIA.

SANITARY CLOSET.

Application filed July 27, 1921. Serial No. 487,917.

To all whom it may concern:

Be it known that I, DAVID GEORGE, a subject of the King of Great Britain, residing at Burwood, near Sydney, in the State of New South Wales, Commonwealth of Australia, have invented certain new and useful Improvements in Sanitary Closets, of which the following is a specification.

This invention relates to improvements in sanitary closets of the class in which a chemical solution is employed to dissolve the faecal matter and render the contents innocuous.

In such closets heretofore difficulty has been experienced in disintegrating the faeces so that the solution may act quickly thereon. A further difficulty has been the removal of the paper and other insoluble material. In the present invention the faecal matter in the closet pan is forced or compressed through a fixed grating which prevents the paper and other comparatively large insoluble material from passing therethrough, which material is scraped from the grating and deposited in a removable receptacle within the casing. The closet is provided with a hinged seat, the movement of which controls and operates a double armed lever, one arm being weighted and the other coupled by a downwardly extending link or rod to an arm on a compressor pivotally mounted on a shaft or stud. The compressor plate is adapted to lie flat against the grating and force the faecal matter therethrough in a fine state of division and on a second arm on said compressor is pivoted the scraper. On the compressor shaft is also mounted a bow or cam lever movable with said compressor and adapted to contact with a projection depending from a slidable or pivoted partition which normally seals the casing. When the seat is lowered to be used the compressor is forced upwardly to a vertical position and simultaneously the cam lever moves back or withdraws the partition. At the same time the scraper passes over the surface of the grating and removes the paper and insoluble material therefrom and deposits it in the crate or receptacle. The movement of the scraper is obtained by causing it to contact and ride on the convex face of a curved block or toppling guide pivoted on a stud in the casing and supported on another

stud. The rearward motion of the arm on which said scraper is pivoted causes the rearward end of the scraper to rise on the curved block and the forward end to make a parallel movement over the surface of the grating. On reaching the end of the curved block and there now being a preponderance on that side, the scraper end is carried clear of the grating and the rear end caught by a fixed stop.

On the seat being thrown back, the scraper, compressor, and slidable or pivoted partition are returned to their normal positions, the scraper in its passage removing any matter which may have collected on the side of the casing while the compressor presses on the grating to force the matter, except the paper and the like, through the openings therein. The whole of the apparatus is enclosed in a suitable casing and is filled to just above the level of the compressor plate with a suitable solution for dissolving the faecal matter. In the bottom of said casing I provide a space which is filled with charcoal or other suitable material and an overflow pipe is connected to said space whereby any excess solution in the upper compartment may overflow and run into the lower chamber. In case the closet is used as a urinal only, I provide a lever and foot attachment which connects and moves the weighted double armed lever under the seat, which action causes the slidable or pivoted partition to open, when the closet may be used for urinal purposes.

I will, however, now refer to the accompanying drawings in order that the invention may be more clearly comprehended.

Figure 1 is a plan of the complete closet.

Figure 2 is a longitudinal section on the line A—A, Figure 1, showing the closet in the open position.

Figure 3 is a fragmentary perspective view of the foot operating levers.

Figure 4 is a similar view to Figure 2 showing the closet in the closed position, while

Figure 5 is a view of the operating mechanism in an intermediate position.

The same reference numerals indicate the same parts throughout the drawings.

8 is the outer casing of the pan which has a seat 9 pivoted at 10 and provided with a counter weight 11. 12 is the main spindle

connected to the seat lever 13 by connecting rod 14. 15 is the compressor pivoted on the main spindle 12 and 16 is the scraper operating lever to which the scraper 17 and curved extension 18 is pivoted at 19. 20 is a pin or stud provided on the curved extension 18 and which slides on the curved block or toppling guide 21 pivoted at 22 and maintained in position by the limit stop 23. 24 is a guide provided on the casing to limit the travel of the curved extension 18. 25 is a cam lever connected to the pivot 19 which lever operates the sealing slide 26 by pushing against the extension piece 27 of the slide. This slide 26, when in the closed position, takes into a recess 28 in the casing. 29 is the grating on which the compressor comes to rest and 30 is a crate to receive paper or other insoluble matter scraped off the grate by the scraper 17. 31 is the overflow pipe leading from the separating chamber into the charcoal chamber 32 from which the liquid is drawn off by pipe 33. 34 is a door provided in the casing for removing the paper crate and for cleaning purposes. 35 is a foot lever pivoted at 36 and terminating in a U shaped piece 35^A. This foot lever is actuated when the closet is to be used as a urinal. 37 is a double armed lever pivoted to the casing at 38 one end of which fits into the U piece 35^A and the other end is slidably and loosely connected to the slide 26, as at 37^A.

In operation, the act of manually pulling down the pivoted seat 9 against its counterbalance weight 11 causes the connecting rod 14 to move downwardly thereby raising the compressor 15 off the grate 29 to bring same to about the vertical position as shown in Figure 2 and in enlarged view, Fig. 5. The curved extension lever 18 is lifted by the pin 20 riding over toppling guide 21 which acts as a cam and causes the scraper 17 to move across the grate 29 as shown in the midway position in Figure 5, until the pin 20 moves right across the guide 21 and drops over same. The preponderance of weight of the lever 18 then causes the scraper 17 to move upwardly on its pivot 19 to the position shown in Figure 2. The lever 25 meanwhile pushes against the extension 27 thereby opening the sealing slide 26. The compression of the faecal matter through the grating is affected on removal of the weight of the person from the seat 9 which rising, causes the connecting rod 14 to move upwardly. At the end of this movement the compressor 15 comes to rest on the grate 29 and forces the faecal matter therethrough, breaking it up, and allowing the liquid to act thereon. The paper and other insoluble material left on the top of the grate is moved by the scraper 17 into the crate 30 when the seat is again lowered by hand. The solution in the pan is kept up to a level

which just covers the compressor and grate, the overflow being carried away by pipe 31 to the charcoal chamber 32 and thence by the discharge pipe 33. Normally the slide 26 is closed by the lever 37 through the action of a spring 37^B.

I claim:—

1. In a closet of the class described, a receptacle, a grating thereover, a movable seat above the grating, and means operated by the seat to press matter through the grating into the receptacle.

2. In a closet of the class described, a receptacle, a grating thereover, a movable seat above the grating, and means operated by the seat to press matter through the grating into the receptacle, a removable receptacle in the first named receptacle, arranged to receive paper from the grating, and means, also operated by the seat, to scrape paper from the grating and cause the same to fall into said removable receptacle.

3. In a closet of the class described, a receptacle, a grating thereover, a seat above the grating pivotally mounted for vertical angular movement, a pivotally mounted compressor movable to and from the grating, means, operated by the seat, to so actuate the compressor, and a scraper pivotally connected to the compressor and carried thereby so that as the compressor rises the scraper moves over the grating, and means to receive the scrapings.

4. In a closet of the class described, a receptacle, a grating thereover, a seat above the grating pivotally mounted for vertical angular movement, a pivotally mounted compressor movable to and from the grating, means, operated by the seat, to so actuate the compressor, and a scraper pivotally connected to the compressor and carried thereby so that as the compressor rises the scraper moves over the grating, and means to receive the scrapings, and means to press the scraper against the grating during its scraping movement.

5. In a closet of the class described, a receptacle, a grating thereover, a seat above the grating pivotally mounted for vertical angular movement, a pivotally mounted compressor movable to and from the grating, means, operated by the seat, to so actuate the compressor, and a scraper pivotally connected to the compressor and carried thereby so that as the compressor rises the scraper moves over the grating, means to receive the scrapings, means to press the scraper against the grating during its scraping movement, and comprising a pivotally mounted cam element, said scraper having a tappet element to move under and raise the cam element during a return stroke of the scraper and to move over said cam element during a scraping stroke of said scraper.

6. In a closet of the class described, a pivotally mounted seat, a sealing slide below the seat, a receptacle, a grating thereover, a pivotally mounted compressor movable by the seat to and from the grating, a scraper 5 pivotally connected to and carried by the compressor, coacting means provided on the slide and the compressor to cause the slide to be moved to open position when the compressor is raised, a lever to move the slide to 10 closed position, and a pedal lever to actuate said lever.

In testimony whereof I have hereunto set my hand.

DAVID GEORGE.