A. McGARY.

CLOSET.

APPLICATION FILED AUG. 4, 1913.

1,149,529. Patented Aug. 10, 1915.

Fig. 1

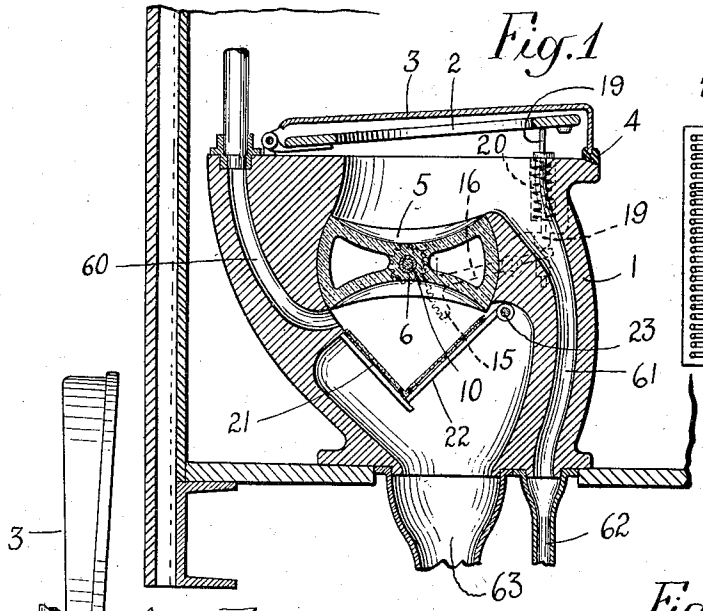


Fig. 5,

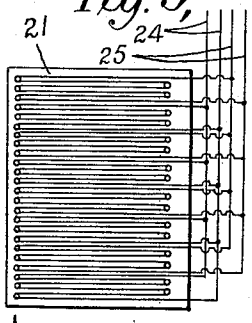


Fig. 2,

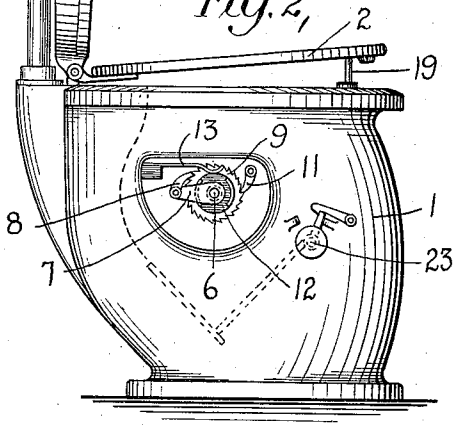


Fig. 3,

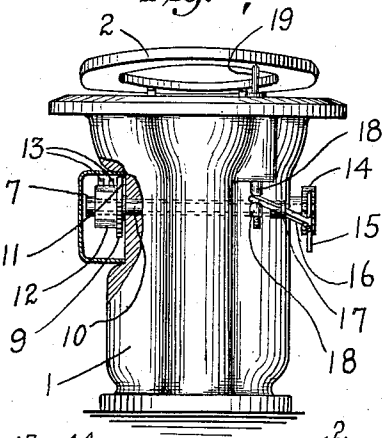
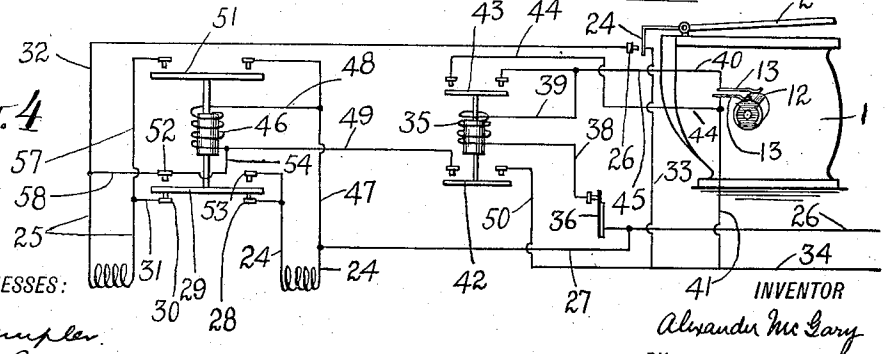


Fig. 4



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CLOSET.

1,149,529. Specification of Letters Patent. Patented Aug. 10, 1915.

Application filed August 4, 1913. Serial No. 782,783.

To all whom it may concern:

Be it known that I, ALEXANDER McGARY, a citizen of the United States, and a resident of the borough of Bronx, city, county, and State of New York, have invented certain new and useful Improvements in Closets, (Case C,) of which the following is a specification.

My invention relates to improvements in closets.

One object of my invention is to provide an improved closet with improved means for heating the excreta therein.

A further object of my invention is to provide an improved arrangement for preventing obnoxious gases from being given off from the closet.

A further object of my invention is to provide a closet with improved arrangements for the separation of liquid from solid matter.

Further objects, features and advantages will more clearly appear from the detailed description given below in connection with the accompanying drawing which forms a part of this specification.

In the drawing Figure 1 is a vertical section of a closet embodying my improvements in one form. Fig. 2 is a side view thereof. Fig. 3 is a front view thereof partly in section. Fig. 4 is a diagram of the electrical circuit connections as a whole, and Fig. 5 is a diagram of the electrical circuit connections of one of the heater parts.

Referring to the drawings, 1 represents a suitable body portion having a seat 2 hinged thereto and provided with a hinged cover 3, also extending over the seat, provided with a rubber band or strip 4 extending around its edges and adapted to fit closely against the top of the body portion 1 in order to prevent obnoxious gases from emanating from the closet. Rotatably mounted in the closet is a pan 5 loosely mounted upon a shaft 6 and adapted to receive solid portions of the excreta. The shaft 6 has fixed thereto an arm 7 carrying the pawl 8, adapted to intermittently rotate a ratchet 9 secured to a sleeve 10 extending over the shaft 9 and rigidly secured to the pan 5. The pawl 11 prevents backward rotation of the pan 5 by engagement with the ratchet 9. Also secured to the ratchet 9 is a commutator or rotary switch 12 adapted to electrically connect spring contacts 13. On the other end of the shaft 6 is secured a gear 14 meshing with a rack 15 carried by a lever 16 pivoted at 17, the other end of the lever being engaged by abutments 18 secured to a spindle 19 normally pressed upward by a spring 20, so that when the seat 2 is vacated it rises under the action of the spring 20, causing a rocking of the lever 16 and a rotation of the pan 5 one half revolution by means of the pawl and ratchet 8 and 9. Upon a depression of the seat the pawl 8 slips over the teeth of the ratchet without moving the pan 5.

Located beneath the pan 5 are two heating plates 21 and 22 carrying electrical resistance elements for heating the excreta which may be discharged thereto from the pan 5 when the pan 5 is rotated. The plate 22 is pivoted at 23 so that it may be rocked on its pivot for discharging any refuse that may be left upon the plates after the heating operation is finished. The electrical resistance heating elements of each plate 21 and 22 comprise a plurality of resistances leading from two separate branch circuits 24 and 25 (see Fig. 5).

Referring to Fig. 4, when the seat is occupied it is depressed thereby, closing a switch member 24 with a switch contact 26. This closes an electrical circuit putting the branches 24 and 25 in series. This circuit may be traced as follows: from the main 26 through conductor 27, branch 24, contact 28, switch member 29, contact 30, conductor 31, branch 25, conductor 32, contact 26, switch 24, and conductor 33 back to the main 34. By connecting the elements in branches 24 and 25 in series a weak current is caused to pass therethrough and consequently the heating plates 21 and 22 are energized weakly. Upon one leaving the seat the seat is caused to rise, thus disconnecting the branches 24 and 25 from the source at the switch contact 26, but the rise of the seat causes a rotation of the switch 12 so that the contacts 13 are momentarily closed. The closing of the contacts 13 energizes the solenoid 35, the circuit being as follows: from main 26 through a thermostat 36, conductor 38, the windings of solenoid 35, conductor 39, conductor 40, contacts 13, and conductor 41 back to the main 34. Consequently the solenoid 35 closes switches 42 and 43. The closing of the switch 43 closes the shunt circuit about the contacts 13 em-

bracing conductors 44 and 45 so that the solenoid 35 remains energized after the breaking of the circuit through the commutator 12. The switch 42 closes the circuit through the solenoid 46, the circuit being as follows: from the main 36, conductor 27, conductor 47, conductor 48, solenoid 46, conductor 49, switch 42, and conductor 50 back to the main 34. This causes the switch 51 to be closed and the switch 29 to electrically connect the upper contacts 52 and 53, thereby connecting the branches 24 and 25 in parallel across the mains 26 and 34 so that the elements are strongly energized and the heater caused to produce its full amount of heat. The circuit may be traced as follows: from the main 26, through conductor 27, branch 24, contact 53, switch 29, contact 52, conductor 54, back to the other main 34 through the switch 42 and the circuit through branch 25 as follows: from the main 26, conductor 27, conductor 47, switch 51, conductor 57, branch 25, conductor 58, conductor 54, conductor 49, and back to the main 34 through the switch 42, so that the branches 24 and 25 are connected across the mains in parallel, and the heater strongly energized. After the excreta has been consumed or heated to the desired degree, the heater is deënergized by the automatic opening of the circuit by the thermostat, which may be located in any convenient position near the heater, so that the heat is turned off upon the proper degree of temperature being reached.

A vent passage 60 leads from the space between the heater and the pan 5 for the purpose of carrying away the most of the obnoxious gases due to the heating. The body portion is provided with a separate passage for the urine at 61 which discharges the same into a pipe 62, independent of the pan and heater. A chute 63 is provided below the heater for the purpose of receiving any refuse that may be discharged therefrom.

From the above it will be clear that when the closet is occupied the pan remains in its normal position but the heater is weakly energized in order to gradually heat the same and thus save electrical energy. Upon one leaving the seat the pan is rotated as above described, the excreta deposited on to the heater, and the heating elements connected in parallel so that they are strongly heated as desired.

Although I have described my improvements in great detail with respect to one particular embodiment thereof, nevertheless I do not desire to be limited to such details except as clearly pointed out in the appended claims, since many changes and modifications may well be made without departing from the spirit and scope of my invention in its broader aspects.

Having fully and clearly described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. In a device of the class described, an electrical heater for receiving and heating the excreta, means for automatically weakly energizing said heater upon one occupying the device, and means for automatically strongly energizing said heater upon one leaving the device.

2. In a device of the class described, an electrical heater for receiving and heating excreta, said heater having a plurality of electrical heating elements, means for connecting said elements in series upon one occupying the device, and means for connecting said elements in parallel upon one leaving the device.

3. In a device of the class described, an electrical heater for receiving and heating the excreta, means for weakly energizing said heater upon one occupying the device, means for strongly energizing said heater upon one leaving the device, and means for automatically deënergizing said heater.

4. In a device of the class described, an electrical heater for receiving and heating excreta, said heater having a plurality of electrical heating elements, means for connecting said elements in series upon one occupying the device, means for connecting said elements in parallel upon one leaving the device, and means for automatically disconnecting said elements electrically after one has left the device.

5. In a device of the class described, a closet seat, an electrical heater in operative relation thereto for receiving and heating the excreta, means controlled by a depression of said seat for weakly energizing said heater, and means controlled by a rise of said seat for strongly energizing said heater.

6. In a device of the class described, a closet seat, an electrical heater in operative relation thereto for receiving and heating the excreta, said heater having a plurality of electrical heating elements, means controlled by a depression of said seat for connecting said elements in series to weakly energize the heater, means controlled by a rise of said seat for connecting said elements in parallel to strongly energize the heater, and means for automatically disconnecting said elements to deënergize said heater.

7. In a device of the class described, an electrical heater for receiving the excreta, means for weakly energizing said heater upon one occupying the device, and means for strongly energizing said heater upon one leaving the device.

8. In a device of the class described, an electrical heater for receiving and heating excreta, means for weakly energizing said heater upon one occupying the device, and means for strongly energizing said heater

upon one leaving the device, said means including means for automatically causing the deënergization of said heater.

9. In a device of the class described, an electrical heater for receiving and heating excreta, means for weakly energizing said heater upon one occupying the device, and means for strongly energizing said heater upon one leaving the device, said means including means controlled by the condition of the heater for causing deënergization of the heater.

10. In a device of the class described, an electrical heater for receiving and heating excreta, means for weakly energizing said heater upon one occupying the device, and means for strongly energizing said heater upon one leaving the device, said means including means controlled by the temperature of the heater for causing deënergization of the heater.

11. In a device of the class described, a closet seat, a pan below the seat, a heater in operative relation to the pan, means for energizing said heater to a slight degree and inverting said pan controlled by the depression of the seat, means for energizing said heater to its maximum degree, and means for restoring said pan, both controlled by the rise of the seat.

12. In a device of the class described, a body portion, a tilting pan in the body portion adapted to receive and discharge solid excreta, a heater below the pan, said body portion having a passage leading from a point at the edge of the pan whereby liquid poured into the device will substantially all be drained through the passage.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

ALEXANDER McGARY.

Witnesses:
GORHAM CROSBY,
J. P. SUNDERLAND.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."