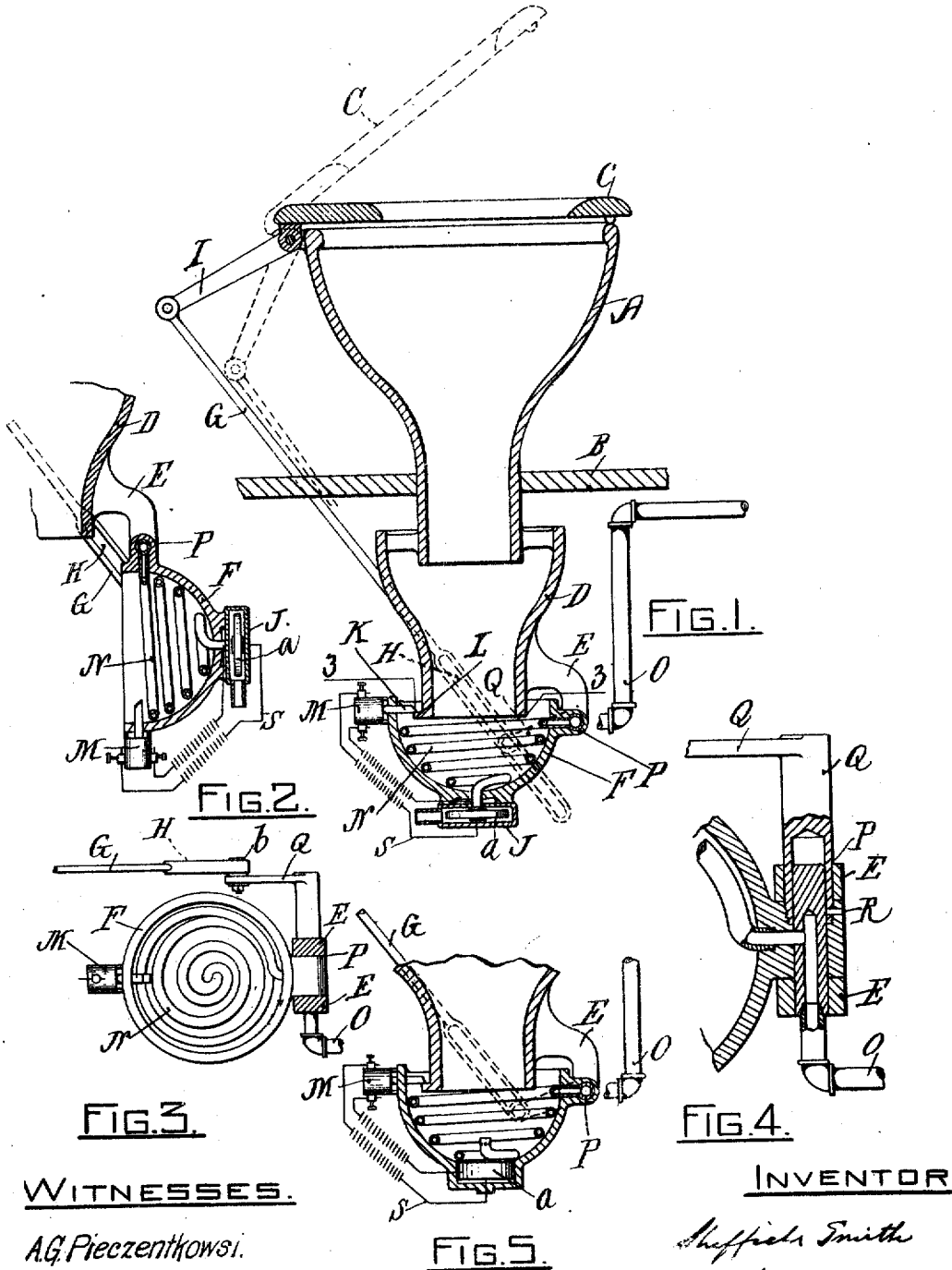


S. SMITH.
 SANITARY WATER CLOSET.
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932,822.

Patented Aug. 31, 1909.



WITNESSES.

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SANITARY WATER-CLOSET.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, SHEFFIELD SMITH, a citizen of the United States, residing at Providence, in the State of Rhode Island, have invented a new and useful Improvement in Sanitary Water-Closets, of which the following is a specification.

The nature of my invention consists in the combination with the seat of a water-closet, of a means for retaining the excreta in a receptacle until the occurrence of a predetermined event, upon which occurrence the contents of the said receptacle will be automatically discharged.

It also consists of means for heating the said excreta to a degree sufficient to destroy the life of the contained germs before it is discharged from the receiving receptacle.

It also consists in means for automatically effecting the discharge of the receiving receptacle upon the attainment of the proper degree of temperature.

It also consists in means for automatically effecting the discharge of the receiving receptacle upon the event of the completion of an electric circuit.

In the accompanying drawings:—Figure 1, represents an axial section of a water-closet provided with my improvement. Fig. 2, represents an axial section of the sterilizing receptacle when turned to discharge the contents thereof. Fig. 3, represents a section taken in the line 3, 3, of Fig. 1. Fig. 4, represents a detail view of the turning joint of sterilizing receptacle, broken away to show its construction. Fig. 5, represents a detail axial section as in Fig. 1, showing a modification in the heating means.

In the drawings, A, represents the water-closet, B, the floor to which it is secured, and C, the hinged seat; D, is an extension sleeve inclosing the lower end of the closet A, to which it is secured, the said sleeve being provided with the projecting arms E, to which the receptacle F, is hinged, the said receptacle being operatively connected with the hinged seat C, by means of the rod G, which is provided with the slot H, and jointed to the arm I, which latter is attached to the under side of the rear of the seat, and by means of the arm J, the said seat is hinged to the closet A, whereby the seat C, and the connected arm I will serve to form a hand-operated lever. The receptacle F, is made in bowl form, and provided at its inner side with the coiled pipe N, adapted for

the entrance of either steam or of hot water, the said pipe terminating at the trap J. The receptacle F, is held in its raised position as shown in Figs. 1 and 5, by means of the spring actuated catch K, which engages with the lug L, upon the sleeve D, and is drawn back to release the receptacle by means of the electromagnet M, which is attached to the outer side of the said receptacle. The action of the electromagnet to cause the withdrawal of the catch K, from the lug L, in order to empty the receptacle F, is effected by means of an electric contact with the magnet wire S, effected upon the expansion of the diaphragm a, of the trap J, by the acquired heat of the contents of the receptacle F. And when the said catch has been withdrawn the receptacle will drop by gravity from the position shown in Fig. 1, to the position shown in Fig. 2, and the heated excreta therein will be discharged.

The steam for heating the excreta in the receptacle F, is caused to pass from the supply pipe O, through the hinge joint P, shown in longitudinal section in Fig. 4. The arm Q, is attached to the hinge portion of the receptacle and firmly secured thereto, by means of the pin R, and the outed end of the said arm is provided with a stud b, which is held in the slot H, of the rod G thus forming a loose connection; so that when the hinged seat C, is raised to the inclined position shown by the dotted lines, the receptacle F, will, when required, be allowed to drop to the position shown in Fig. 2. And when the seat C, is brought down to its proper position for use, the said receptacle will be brought up to the position shown in Figs. 1 and 5, for the holding engagement of the catch K, with the lug L.

As shown in Figs. 1 and 2, the steam trap J, is located at the outer side of the receptacle, and the steam is to be held in the pipe N, under pressure, but Fig. 5, represents the apparatus when the diaphragm a, is held in contact with the excreta and is used only to cause the disengagement of the receptacle F, upon the proper heating of its contents.

As represented in the drawing, the coils of the pipe N, are made open, but in practice the spaces between the coils will be closed up so that the bowl will present a true surface at its inner side.

I have described the principles involved in the operation of my invention, together with an apparatus which represents an em-

bodiment thereof, but I desire to have it understood that the improvement may be carried out by the employment of various devices without departing from the spirit of my invention which consists in the retention of the excreta in a receiving receptacle for sterilization therein, with eventual automatic discharge.

I make no claim whatever to "the combination with a bowl provided with a gravity discharge orifice, of a receptacle or pan pivoted to close said orifice, and means for admitting a heating fluid to heat the pan", neither do I claim "the combination of a water closet seat and a pivoted receptacle for holding the excreta, with a steam passage extending to the receptacle through the hinge joint," the same having been previously invented by another.

I claim as my invention:—

1. The combination with a water closet seat, of a swinging receptacle for receiving the excreta, means attached to the said receptacle and swinging therewith for heating and sterilizing the excreta deposited therein, and means for automatically discharging the sterilized excreta from the receptacle.

2. The combination with a water closet seat, of a receptacle for receiving the excreta, means for heating the excreta within the receptacle, and means for causing the discharge of the excreta upon the attainment of the required degree of heat.

3. The combination with a water-closet seat, of a receptacle for receiving the excreta, means for heating the excreta within the receptacle, and electrical means for causing the discharge of the excreta upon the attainment of the required degree of heat.

4. The combination with a water-closet seat, of a receptacle for receiving the excreta, a steam pipe and trap for heating the excreta within the receptacle, and electric means operated by the action of the trap for causing the discharge of the excreta upon the attainment of the required degree of heat.

5. The combination of a water-closet seat and a hinged receptacle for holding the excreta with a catch for holding the receptacle in its receiving position and means for causing the electric withdrawal of the catch for discharging the contents of the receptacle.

6. The combination of a water-closet seat and a hinged receptacle for holding the excreta with means for holding the receptacle in its receiving position and a loose connection for causing the elevation of the receptacle whereby upon the reversal of the movement of the elevating means, the receptacle may at a predetermined proper time be allowed to drop to its discharging position without obstruction.

7. The combination of a water-closet seat and a hinged receptacle for holding the excreta, with a catch for holding the receptacle in position for receiving the excreta, and an electromagnet for withdrawing the catch upon the event of a completion of the electric circuit.

8. The combination of a water closet seat, and a hinged receptacle for holding the excreta, with a catch for holding the receptacle in position for receiving the excreta, means for raising the receptacle to its catch-engaged position, and means for causing the automatic disengagement of the receptacle at a predetermined proper time.

9. In a sanitary water closet, the combination of a hinged receptacle for holding the excreta, means for holding the said receptacle in position for receiving the excreta, a hand-operated lever, and a loose connection between the said hand-operated lever and the said hinged receptacle, whereby upon the reversal of the movement of the said lever, the receptacle may at any determined time be allowed to drop to its discharging position without obstruction.

SHEFFIELD SMITH.

Witnesses:

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ALEXANDER F. BOIG.