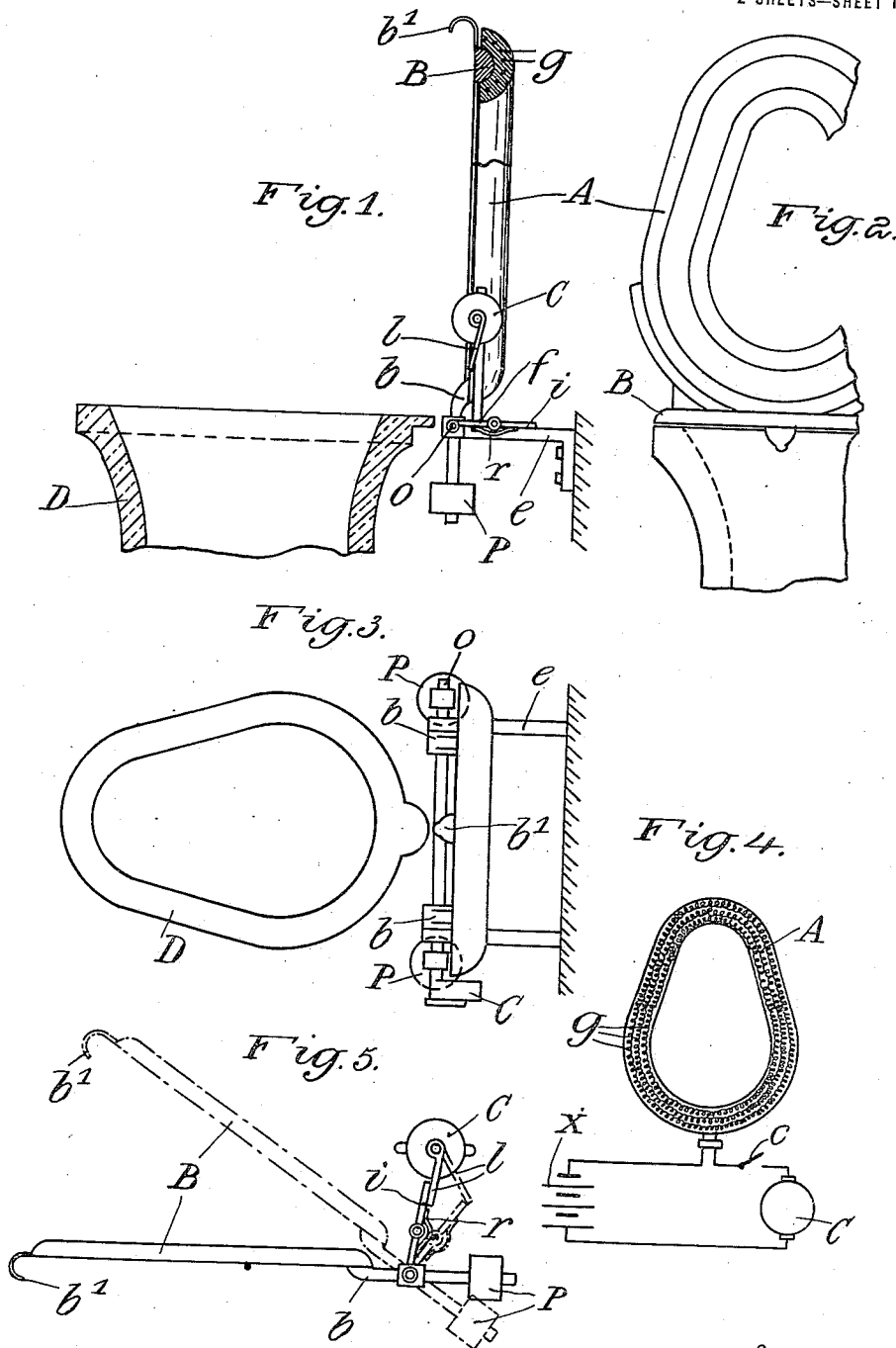


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 APPARATUS FOR STERILIZING WATER CLOSET SEATS.
 APPLICATION FILED SEPT. 21, 1918.

1,297,031.

Patented Mar. 11, 1919.
 2 SHEETS—SHEET 1.



Inventor
 Juan Nicolas Stable.
 By *[Signature]*
 his Attorneys.

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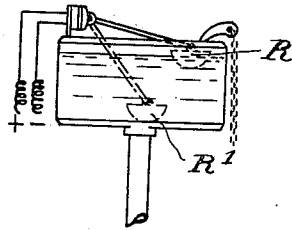
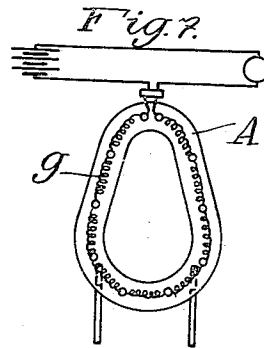
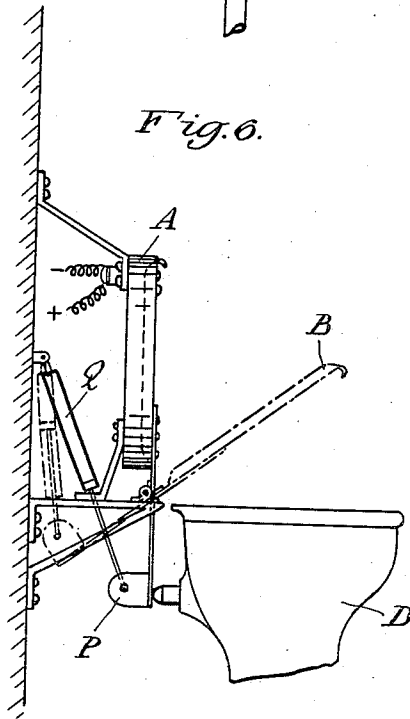


Fig. 6.



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UNITED STATES PATENT OFFICE.

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APPARATUS FOR STERILIZING WATER-CLOSET SEATS.

1,297,031.

Specification of Letters Patent. Patented Mar. 11, 1919.

Application filed September 21, 1918. Serial No. 255,032.

To all whom it may concern:

Be it known that I, JUAN NICOLAS STABLE, consul of Cuba, a citizen of the Republic of Cuba, residing at Geneva, Canton of Geneva, in the Confederation of Switzerland, have invented certain new and useful Improvements in new and useful Apparatus for Sterilizing Water-Closet Seats, of which the following is a specification.

The invention relates to a new and useful device for disinfecting the seat of water-closets and the object of the invention is to destroy every disease germ which may be attached to the said seat after each use of the same by a sick person, thus preventing infection by persons who make use of the same seat after its having been used by a sick person.

To that effect the device comprises a sterilizing apparatus which is heated electrically to a very high temperature for a predetermined time, the seat of the water-closet being automatically placed into contact with the said apparatus each time it is used.

The accompanying drawing shows, by way of example, two constructions involving the invention.

Figure 1 is a side elevation and partial axial section of a water-closet provided with a movable seat and with a device for disinfecting the same. In this figure the seat is lifted by its counter-weights and connected to the disinfecting device.

Fig. 2 is a front elevation of the device shown in Fig. 1, a portion of the frame being broken away.

Fig. 3 is a plan view of the same device.

Fig. 4 is a diagrammatic plan of the electric circuits of the device shown in the Figs. 1 to 3.

Fig. 5 is a side elevation showing the seat when pulled down and the corresponding position of the levers *f*, *i* and *l*.

Fig. 6 shows a modified construction of a water-closet involving the invention.

Fig. 7 is a front elevation of the frame A.

In the construction as shown in the Figs. 1 to 5, A is a disinfecting device formed of a hollow frame the form of which corresponds to that of the seat B. D is the basin.

The cross-section of frame A is substantially semi-circular and the seat B fits exactly into the same as shown, when in its lifted position. Within the frame A there are inserted a number of suitable electric re-

sistances *g*, intended to temporarily heat the seat B when the same is lifted and engaged with the said frame A. The said resistances are connected in an electric circuit as shown in Figs. 4 and 7, in which X is a source of electricity. In this circuit there is a switch *c* controlled by a timing interrupter or motor C which is so constructed as to keep the circuit closed for about 45 to 60 seconds each time the said controller is started by a lever *l*. This lever *l* is acted upon by the yielding portion *i* of an arm *f* fixed to a rod O.

The seat B is connected by means of levers *b* to the rod O carried in the bearings *e* which are fixed to the wall. Secured to the rod O there are two adjustable counter-weights P which tend to lift the seat B automatically into its raised position, in which it bears against the frame A. The seat B is hollow and is made of some incombustible material, as aluminum for example, having its external surface preferably enameled in white. The frame A may be placed either in a quite vertical position, as shown, or in a somewhat inclined position depending upon local conditions. A handle *b*¹ is provided to pull down the seat B.

The rod O carries a lever *f* to which is hinged a yielding arm *i* acted upon by a spring *r*, the said lever moving together with the seat B and causing the interrupter C to be started whenever the said seat B is raised.

When the latter is pulled down the arm *i* of lever *f* is placed on the left of lever *l* of the timing interrupter C, as shown in Fig. 5. When the counter-weight P causes the seat B to be raised and brought into contact with the frame A, the arm *i* acts upon the lever *l* of the interrupter C, which is provided with any well-known device causing the closing of the circuit for a predetermined length of time, for instance for 45 to 60 seconds. During the said time the seat B, which is engaged with the frame A is heated by the resistances contained in the latter, to a sufficient temperature, say about 172° to 212° F. to kill or destroy any germs of disease which may be attached to the said seat. As soon as the electric circuit is automatically opened by the interrupter C the seat begins to cool by its contact with the air.

This cooling may be hastened by means of having a current of cold water passing into the seat B which is preferably hollow for that purpose, as soon as the electric current

is interrupted, and means may be provided for causing the said cooling to take place automatically as soon as the heating device is cut out. The said cooling however, may be effected by any suitable means.

In the construction shown in Figs. 6 and 7, the seat B is provided with an air-brake Q acting upon the counter-weight P so as to prevent the lifting of the seat too abruptly.

In this construction the closing of the electric circuit through the resistances *g* is caused by means of a water gage R. The device is so constructed that the electric current is interrupted as long as the water gage is lifted by the water as shown at R in Fig. 6 and to be closed as soon as the said gage begins to descend from its raised position to its lower position as indicated at R¹.

I claim as my invention:

1. In a sterilizing apparatus and in combination, a fixed heating element, a member to be sterilized and adapted to be moved into and out of contact with the heating element, and means for heating the said heating element for a predetermined period each time the movable element is brought into contact therewith.

2. In a sterilizing apparatus and in combination, a fixed heating element, a member to be sterilized and adapted to be moved into and out of contact with the heating element, means for normally maintaining the movable device in contact with the heating element, and means for automatically raising the temperature of the heating element for a predetermined period each time the movable member is brought into contact therewith.

3. In a sterilizing apparatus and in combination, a fixed member, a plurality of electrical resistances for heating the said fixed member, a member to be sterilized adapted to be moved into and out of contact with the said fixed member, means for normally maintaining the movable member in contact with the fixed member, and means for closing an electric circuit to the said resistances for a predetermined period each time the said movable member is brought into contact with the said fixed member.

4. In a sterilizing apparatus and in combination, a fixed heating element, a water-closet seat mounted to swing into contact with the said fixed heating element, means

for normally maintaining the said seat in contact with the said heating element, and means for automatically raising the temperature of the heating element for a predetermined period each time the said seat is brought into contact therewith.

5. In a sterilizing apparatus and in combination, a fixed member, a plurality of electric heating resistances in the said fixed member, a water-closet seat mounted to swing into contact with the said fixed member, counter-weights for normally maintaining the said seat in contact with the fixed member, a circuit interrupter, and levers operated by the movement of the said seat so as to close a circuit through the said resistances in the fixed member for a predetermined period every time the seat is brought into contact with the said fixed member.

6. In a sterilizing apparatus and in combination, a fixed member, a plurality of electrical resistances for heating the said fixed member, a member to be sterilized adapted to be moved into and out of contact with the said fixed member, means for normally maintaining the movable member in contact with the fixed member, means for closing an electric circuit to the said resistances for a predetermined period each time the said movable member is brought into contact with the said fixed member, and means for cooling the said movable member.

7. In a sterilizing apparatus and in combination, a fixed member, a plurality of electric heating resistances in the said fixed member, a water-closet seat mounted to swing into contact with the said fixed member, counter-weights for normally maintaining the said seat in contact with the fixed member, a circuit interrupter, levers operated by the movement of the said seat so as to close a circuit through the said resistances in the fixed member for a predetermined period every time the seat is brought into contact with the said fixed member, and means for cooling the said seat.

In testimony whereof I have affixed my signature in presence of witnesses.

JUAN NICOLAS STABLE.

Witnesses:

LOUIS H. MUNIER,
V. FIGUEROA LORA,
E. MORANO MARLO.