# United States Patent [19]

# Vanderbrook

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[54]	TOILET OPERATING ASSEMBLY			
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[56]		References Cited		
	UNIT	TED STATES PATENTS		
636,	564 11/189			
911,	942 2/190	9 Cowan 4/237		

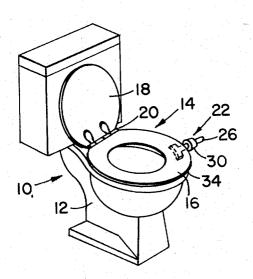
985,535	2/1911	Moriarty	1/2/1
1,297,031	3/1919	Stable	4/237 X
2,214,066	9/1940	Peters	4/1
3,566,421	3/1971	Waddle	4/237
3,717,884	2/1973	Mantooth	4/237

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# [57] ABSTRACT

A toilet operating assembly for protecting the hands of a user of a toilet against germs, the operating assembly being adapted to attach to a toilet seat and to include a partially housed vapor emitting, wick, separating an operating handle and the toilet seat.

5 Claims, 3 Drawing Figures



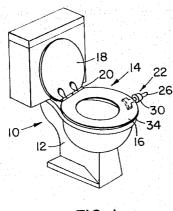
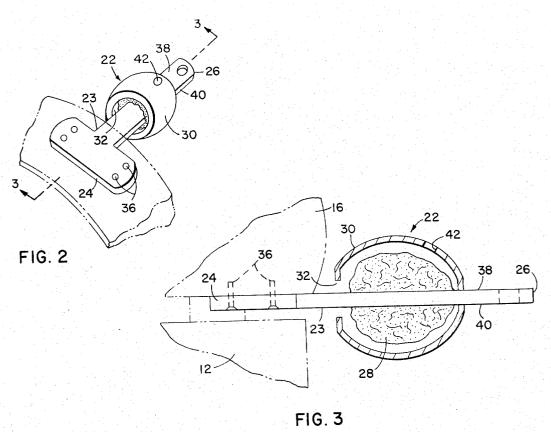


FIG. I



## TOILET OPERATING ASSEMBLY

This invention relates to devices for the operation and use of toilets wherein some means is provided for safeguarding the user in handling the toilet from germs which the user would otherwise encounter.

#### **BACKGROUND OF THE INVENTION**

Certain types of handles and brackets have been previously suggested for operating toilet seat assemblies wherein the hand of the user is isolated to some extent 10 from the surface of the seat of the assembly. However, the applicant believes that these have failed to provide a substantial barrier to the transmission of germs between the toilet seat and the hands of the user.

#### **SUMMARY OF THE INVENTION**

Accordingly, it is an object of the present invention to provide a new and improved toilet operating assembly wherein the missing protection is provided. Accordingly, and in accordance with this invention an arm is 20 connected at one end to the member of the toilet to be operated and intermediate this end and the opposite end, which is hand operated, there is provided a porous body which surrounds the arm and which is adapted to be filled with a vaporizing germicidal liquid. The po- 25 in FIG. 2. rous body is generally surrounded by a housing which extends outward from the arm in the region between the hand operating end or handle and the porous body.

#### **BRIEF DESCRIPTION OF THE DRAWINGS**

FIG. 1 is a pictorial view of a portion of a commode assembly including the invention.

FIG. 2 is a plan view of an operating handle constructed in accordance with the invention.

FIG. 3 is a sectional view taken along lines 3-3 of 35

## **DESCRIPTION OF THE PREFERRED EMBODIMENT**

Referring to the drawings, in FIG. 1 there is shown a 40 partial view of a conventional commode 10. Commode 10 includes bowl 12 which supports a seat assembly 14 of seat 16 and seat cover 18, each being hinged to common pin 20 so that seat 16 and cover 18 may be selectively raised or lowered.

To seat 16 is installed a hygenic operating handle assembly 22 constructed in accordance with the invention. Handle assembly 22 is typically formed of plastic or other suitable non-corrosive material and includes a central arm or frame member 23 with an attaching 50 member or mounting plate 24 at one end and a hand engaging member 26 at the opposite end. Intermediate between ends there is provided a germicidal wick or porous body 28. A protective shell 30 extends outward from arm 23 between porous body 28 and hand engag- 55 ing member 26 and generally houses porous body 28, leaving an annular opening 32 for directing vapor toward attaching member 24 and seat assembly 14. Attaching member or mounting plate 24 is contoured to seat 16 and is provided with mounting holes 36 to accept wood screws, sheet metal screws, etc., not shown, for attaching handle assembly 22 to seat 16. Alternately, handle assembly 22 may be secured to seat 16 by a suitable waterproof adhesive.

Hand engaging member 26 is formed into a finger

grip essentially toroidal in shape, to provide upper and lower hand engaging surfaces 38 and 40, which are effectively isolated from seat 16.

Germicidal porous body 28, is actually attached to arm 23 and is formed of a non-nutrient material such as asbestos or a porous synthetic material which temporarily stores a quantity of vaporizing germicidal agent in liquid form. Vapors from the liquid escape through annular slot 32 to kill bacteria which otherwise would contaminate arm 23 and migrate to hand engaging member 26. Porous body 28 is filled and replenished through filler hole 42, positioned in the outer top region of protective shell 30. Ideally, porous body 28 is treated with a chemical indicator which visibly changes 15 color as germicide is depleted.

Handle assembly 22 may be fastened to the under side of seat 16 at any convenient point in the manner heretofore described. Similarly, a handle 22 may be fastened to a side of cover 18. Still another application of handle assembly 22 would be as an operating assembly for flushing a commode. In such instance there would be provided an appropriate clamp to interconnect the handle assembly to the flushing lever which would replace the flat attaching member 24 illustrated

The handle assembly is illustrated and described herein would be gripped by the fingers in an obvious manner when used to lift a seat 16, and/or cover 18 or to perform a flushing function and in all cases an escap-30 ing germicide would provide an antiseptic barrier between the finger or hand grip 26 and the toilet seat or other toilet member to which it is attached. In this fashion the invention provides an improved means of hygenic protection for users of toilets, particularly public toilets and toilets used by children.

What is claimed is:

1. A toilet operating assembly comprising:

an arm member adapted to be attached at one end to a toilet member to be operated;

a handle extending from an end of said arm opposite to the end of said arm attachable to said toilet member:

a porous body affixed to and surrounding a length of said arm and intermediate its end and adapted to contain a sanitizing, vaporizing liquid,

whereby the path along said arm between said toilet member and said handle is interrupted by said porous body and bacteria migrating along the path are destroyed by said vaporizing liquid.

2. A toilet operating assembly as set forth in claim 1 further comprising a housing extending outward from said porous body and said handle and covering at least one end and a side portion of said porous body.

3. A toilet operating assembly as set forth in claim 2 wherein said housing includes an opening on a top side of said housing adapted to enable the application of a said liquid to said porous body.

4. A toilet operating assembly as set forth in claim 3 wherein said arm member includes an enlarged but relmate with the outer curvature 34 of the underside of 60 atively flat region adapted to be attached to one of the surfaces of a toilet seat assembly.

5. A toilet operating assembly as set forth in claim 4 further comprising a toilet seat assembly and said arm member is attached to it, extending outward from the 65 under side of a toilet seat of said toilet seat assembly.