Jan. 25, 1927.

W. SEE

1,615,775

SURFACE TOILET

Filed July 11, 1921

Fig. 1.

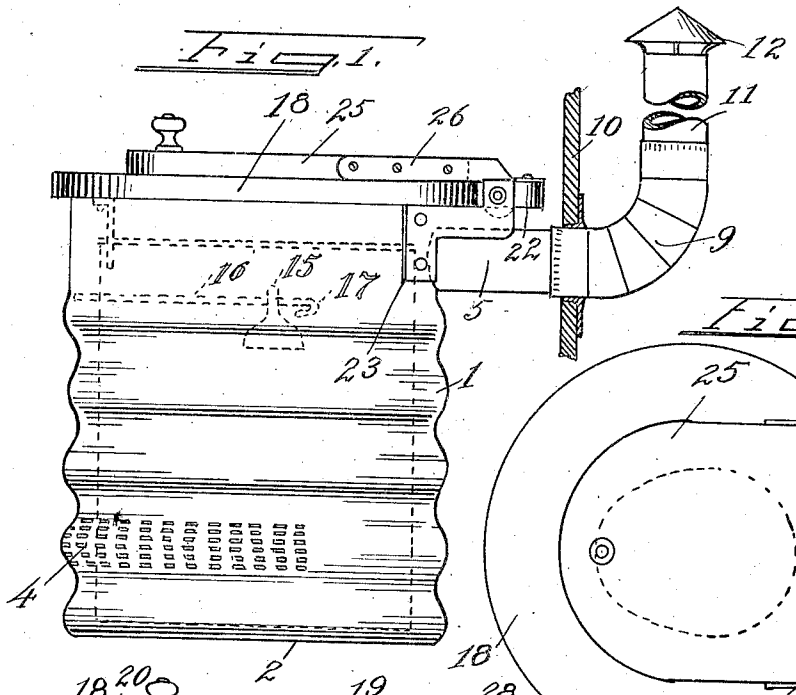


Fig. 3.

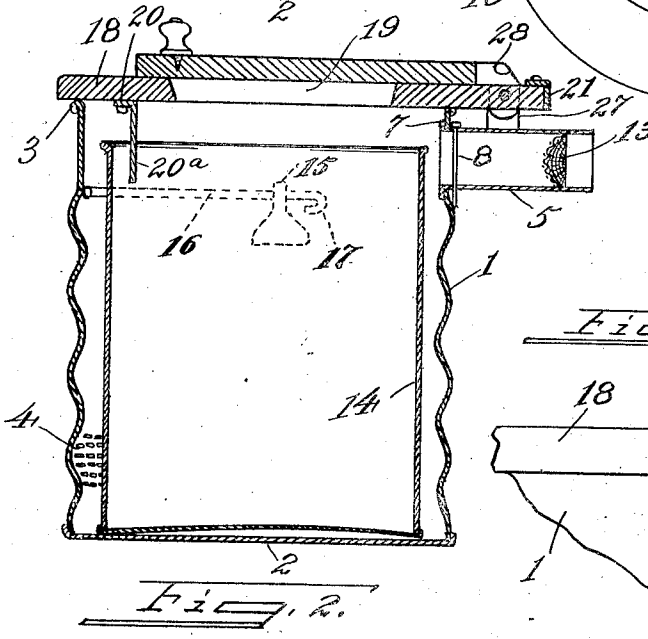
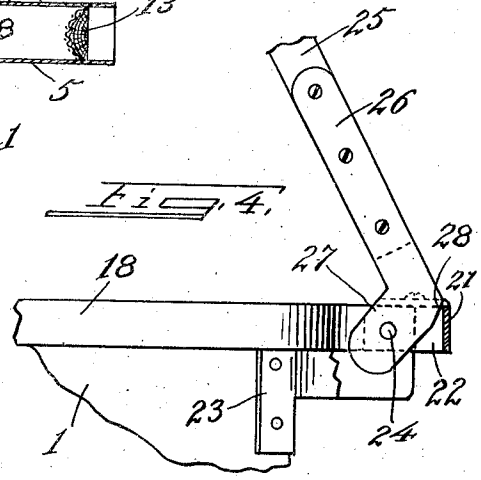


Fig. 2.

Fig. 4.



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Patented Jan. 25, 1927. 1,615,775

UNITED STATES PATENT OFFICE.

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SURFACE TOILET.

Application filed July 11, 1921. Serial No. 483,670.

My invention relates to closets or toilets which employ a removable pail and which, as the name indicates, do not employ sunken holes, septic tanks, water flushing devices, and the like.

In such devices, I have found that both from the manufacturing point of view and the sanitary point of view there are serious defects in the types produced prior to my invention. In the ventilation of the outer cans, and the strength thereof, and in the provision of fly-tight lids and seats, together with adequate provision against permitting excreta to fall otherwise than into the removable pail, my device is, I believe, a decided improvement over the previous devices of the same type with which I am familiar.

Also it is the object of my invention to cut down the expense of manufacture and of installation of devices of this character to the lowest possible point, which is considerable of a public benefit, since such devices are chiefly called for in the poorer settlements where sub-surface drainage is not provided and proper cess pools, settling tanks or the like are beyond the means of the inhabitants.

I accomplish the objects of my invention by that certain construction and arrangement of parts to be hereinafter more specifically pointed out and claimed.

In the drawings,

Figure 1 is a side elevation of the device.

Figure 2 is a central vertical section thereof.

Figure 3 is a top plan view thereof.

Figure 4 is a detail side elevation showing the operation of the seat lid.

The outer can, which is to be set on the floor of a proper out-building, is formed of a tubular body of corrugated sheet metal 1 with a base 2. The corrugations should be wide and deep to make a very strong and durable article which will not collapse or dent, and to form an upper edge the metal cam should be rolled as at 3.

In the corrugations next above the base of the can and across the front portion of the can, I cut a series of small slits 4, by denting in the metal and breaking it at the inner edges of the dents. The slits in the example shown are in six rows, although this is not essential. The essential is that they be not wide enough to admit flies or other germ-carrying insects, and that they be omitted at the rear of the can. At the upper edge of the can at the rear is formed a hole for a vent pipe 5.

This pipe 5 is flanged at its inner end as at 7, so that it can be thrust through the hole until its flange abuts the inside of the can. The pipe is pierced with suitable holes such that when it is thrust into place a pin 8 is threaded into the holes. Since the device is shipped with the seat in place, this securing device is particularly well adapted for easy installation, since the pipe may be turned with the holes in a horizontal line, the pin thrust into them and the pipe then turned to bring the head of the pin upwardly so that it cannot fall out.

An elbow 9 fits the vent pipe and will preferably be passed through the wall 10 of the out-house, and to it is attached a pipe 11 of the height required by boards of health including a suitable water shedding cap 12 on the top-most section.

The ventilation in the outer can thus consists in air passing into the base of the can all around it and circulating upwardly and rearwardly until it passes out through the vent pipe. There are no screened openings in the can to be kicked out by the users, and no insects can gain access to the interior through the ventilating device. The vent pipe will have a screen 13 therein to prevent chance insects dropping down into the can from above.

The pail is of the standard type required by health authorities and fits into the outer can.

It has a cylindrical body 14 with fittings on the sides having eyes 15 for a bail 16. The bail can slide in the eyes, so that the pail will fit into the can, and on its ends has crooks 17 which will engage the parts surrounding the eyes. This is merely a selected form of handle and other forms may be adopted.

The seat 18 of the device is formed of suitable material preferably wood with the customary orifice 19, and is reinforced across the front by a metal plate 20. Such seats are most likely to crack apart at the front which is prevented by the plate, and, furthermore, I form a flange 20a on the plate which depends into the pail, so as to guard against excreta falling into the outer can.

At the rear, the seat extends beyond the periphery of the can and is fitted with an angle strap 21, which is mounted firmly in place

and has its ends 22 turned inwardly, but spaced away from the ends of the seat, so as to leave a space for the seat lid hinge.

A pair of brackets 23 are mounted on the outside of the can, and pins 24 therein serve to hinge the ends 22, so that the seat can swing upwardly past the vertical.

The lid 25 rests closely against the seat over the orifice therein, and likewise extends beyond the periphery of the can, where it is provided with side plates 26, 26, which are turned down as at 27 and hinged in the space between the body of the seat and the ends 22 on the same pins that hinge the seat.

The side plates are so formed that when the lid is raised to an angular position to permit use of the device, the portions 28 thereof will abut against the straps at the rear of the seat, thereby preventing movement of the lid as far as the vertical and insuring the closing thereof by gravity as soon is it is released from elevated position.

Due to the corrugated structure the can is not likely to be dented and hence the seat fail to closely cover the open end thereof. The whole structure is inexpensive and strong and practically odorless and fly-proof.

Because of failure to mention equivalent structures throughout the specification I do not wish to be limited in the application of the doctrine of equivalents to the claim that follows.

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

In a device of the character described, the combination with a toilet can, and a pail to fit therein, of a toilet seat therefor, brackets on the can, and members extending out from the seat and thence parallel with the brackets, pins engaging the said members and the brackets to provide a hinge, a lid for the seat, and members on the lid extending into the space between the extending out members on the seat and the brackets, said lid member being hinged to the same pins, and abutments on the lid members to strike said extending out members to prevent lifting of the lid to vertical position.

WILLARD SEE.