

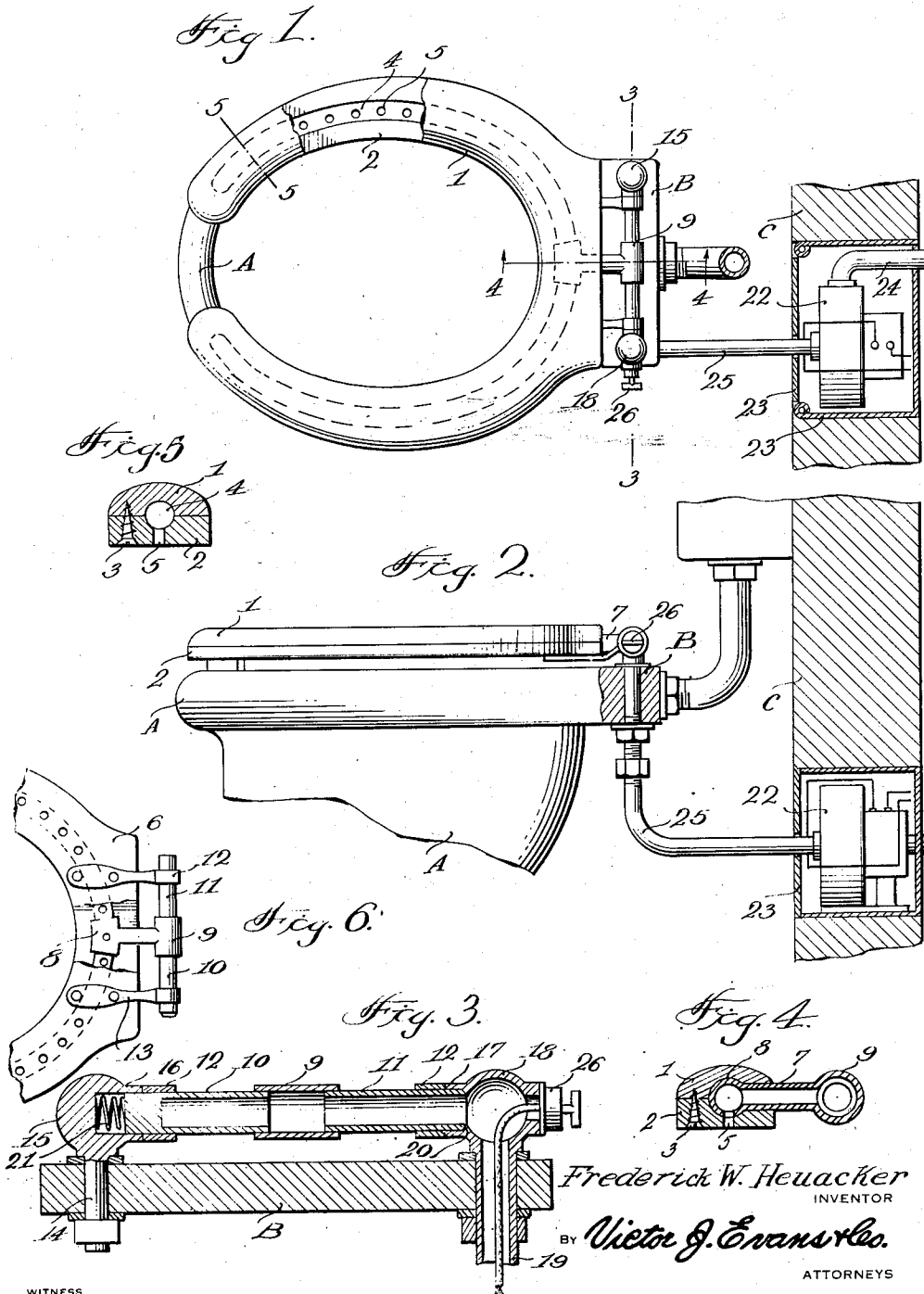
Sept. 24, 1940.

F. W. HEUACKER

2,216,008

VENTILATING APPARATUS FOR TOILET BOWLS

Filed Nov. 13, 1939



UNITED STATES PATENT OFFICE

2,216,008

VENTILATING APPARATUS FOR TOILET BOWLS

Frederick W. Heuacker, Miami, Fla.

Application November 13, 1939, Serial No. 304,242

1 Claim. (Cl. 4—213)

This invention relates to ventilating apparatus for toilet bowls, and its general object is to provide an apparatus that includes a hinged seat which together with the hinge thereof are constructed for directing offensive odor from the bowl, and which is drawn therefrom by suction means that exhausts the same exteriorly of the building through suitable vent means.

A further object is to provide a toilet bowl seat that has a chamber therein, in the form of a conduit along the length thereof, as well as inlet openings extending from the bottom of the seat to the chamber and the latter communicates with suction means through the medium of the hinge for the seat.

Another object is to provide a ventilating apparatus of the character set forth, that is simple in construction, inexpensive to manufacture, and extremely efficient in operation, use and service.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawing and specifically pointed out in the appended claim.

In describing the invention in detail, reference will be had to the accompanying drawing wherein like characters denote like or corresponding parts throughout the several views, and in which:

Figure 1 is a top plan view of the apparatus, with parts broken away and in section.

Figure 2 is a side elevation thereof with parts broken away and in section.

Figure 3 is a sectional view taken approximately on line 3—3 of Figure 1.

Figure 4 is a sectional view taken approximately on line 4—4 of Figure 1.

Figure 5 is a sectional view taken approximately on line 5—5 of Figure 1.

Figure 6 is a fragmentary bottom plan view illustrating the double T-coupling between the seat chamber and the hinge.

Referring to the drawing in detail, the letter A indicates a toilet bowl of the usual construction having a rearwardly directed hinge mounting extension B and which is shown to illustrate the application of my seat and the hinge thereto.

The seat in the form shown is of the open front type and preferably includes upper and lower sections 1 and 2, each having a groove in the inner flat face thereof, so that when the sections are secured together in face to face relation by screws 3 or the like the grooves pro-

vide a chamber 4 that extends from adjacent the forward ends of the seat along the remaining portion thereof, as clearly shown in dotted lines in Figure 1. The sections may be made from any material suitable for the purpose, but I preferably make the lower section from Celluloid or the like, and the lower section is provided with a plurality of holes 5 extending through the under face thereof and communicating with the chamber, as best shown in Figure 5, the holes providing inlets, as will be apparent, and they may have beveled outer ends.

The rear portion of the seat is slightly enlarged as at 6 and has mounted therein to extend centrally from the rear end thereof, the hollow shank 7 and one head 8 of a double headed T-coupling 9. The head 8 is disposed to communicate with the chamber 4 and fixedly mounted in the other head of the T-coupling to extend outwardly therefrom are aligned pipe sections 10 and 11 that have mounted thereon the collars 12 of hinge members 13, the latter being fixed to the underside of the rear portion of the seat by screws, as clearly shown in Figure 6. The head 8 is likewise provided with a hole as clearly shown in Figure 6.

The extension B is provided with a pair of openings and disposed through one of the openings and secured accordingly is the shank 14 of a ball headed member 15 having a recess extending laterally therein from a collar 16 that has the solid outer end portion of the pipe section 10 pivotally mounted therein, while the other pipe section 11 is pivotally mounted in a collar 17 formed on a hollow ball headed member 18 which has its hollow shank 19 extending through and secured in the other opening of the extension B as best shown in Figure 3. The end of the pipe section 11 that is mounted in the collar 17 is beveled as at 20 for fitting a beveled seat therein and is held seated, by a coil spring 21 engaging the inner end of the recess of the member 15 and the solid end of the pipe section 10, so that a tight joint will be provided between the member 18 and the pipe section 11, to prevent leakage of air therefrom, as will be apparent.

A suction fan 22 is included in my apparatus and it is shown as being housed within a casing 23 mounted within a partition or wall C, but of course it will be understood that the fan can be disposed at any appropriate place, providing the outlet or exhaust pipe 24 communicates with a suitable vent opening or extends exteriorly of the building. The wall shown is an outer wall of the

building, with the exhaust pipe extending exteriorly thereof.

Connected to the lower end of the hollow shank 19 by a nut coupling, in the form shown, is one end of a pipe 25 that has its opposite end connected to the fan housing as clearly shown in Figures 1 and 2. The motor of the fan is controlled by a switch 26 secured to a lateral extension formed on the ball headed member 18 and the conductors for the switch extend through the member 18, the shank 19 and the pipe 25, with the result it will be seen that they are completely housed, as will be apparent upon inspection of Figure 3.

From the above description and disclosure in the drawing, it is believed that the operation of my apparatus will be obvious, but it might be mentioned that upon closing the circuit to the motor of the fan, by the switch 26 that is conveniently arranged, as best shown in Figure 2, the fan will draw air through the inlet holes 5, and consequently offensive odors from the bowl, the air and odors thence being directed to the fan housing and finally to the atmosphere through the medium of the exhaust pipe 24.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be

made in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claim.

What I claim is:

A ventilating apparatus for a toilet bowl, comprising a seat for the bowl, said seat having a chamber therein communicating with the bowl when the seat is resting thereon, hollow hinge means for the seat and including pipe sections, a double headed T-coupling providing communication between the chamber and the pipe sections and having one head mounted in the chamber, said pipe sections being fixed in and extending from the other head for disposal in alignment with each other, mounting means for the pipe sections and secured to and rising from the rear portion of the bowl and having the outer ends of the pipe sections pivotally mounted therein, a beveled seat within one of said mounting means and one pipe section having a beveled end mounted on the seat to provide a leak proof connection, a spring within the other mounting means and engaged with the other pipe section for holding the first pipe section seated, and suction means communicating with the pipe sections through the medium of one of said mounting means.

FREDERICK W. HEUACKER.