July 25, 1939. B. F. WEBB 2,167,597

CLEAN-OUT CLOSURE FOR TOILET BOWLS

Filed June 21, 1938

Fig. 1.

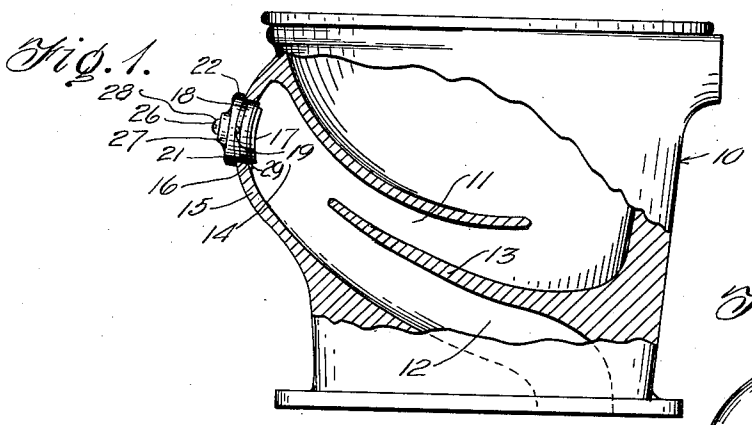


Fig. 5.

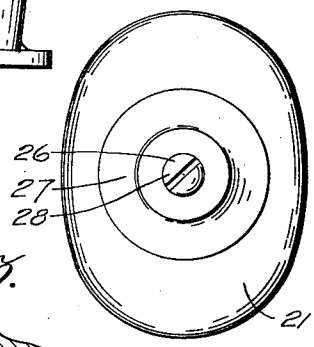


Fig. 2.

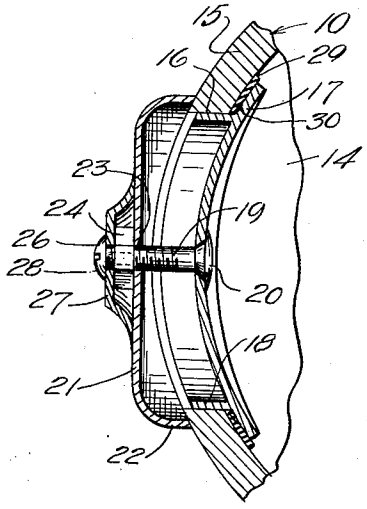


Fig. 3.

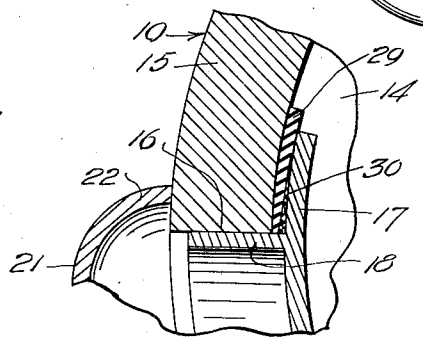
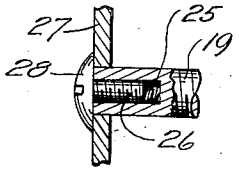


Fig. 4.



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Patented July 25, 1939 2,167,597

UNITED STATES PATENT OFFICE

2,167,597

CLEAN-OUT CLOSURE FOR TOILET BOWLS

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Application June 21, 1938, Serial No. 215,021

1 Claim. (Cl. 4—257)

This invention relates to toilet seat constructions and more particularly to a means for cleaning out the trap of a toilet seat.

An object of this invention is to provide in a toilet seat an improved clean-out opening and a closure therefor which is so constructed that the clean-out opening will be disposed in a position whereby communication may be had with the trap and the discharge duct of the seat so that both the trap and the duct may be cleaned out through the same clean-out opening.

Another object of this invention is to provide an improved clean-out plug for mounting in an opening provided in a toilet seat whereby the opening will be entirely sealed and the closure will be constructed of material similar to the material of the seat or bowl.

A further object of this invention is to provide an improved plug or closure for a clean-out opening in a toilet bowl or seat which will snugly engage the marginal portions of the opening and which includes a pair of gaskets or cushioning members engageable with the wall of the bowl about the cleanout opening so as to tightly seal the plug in the opening without danger of the plug cracking or otherwise damaging the vitreous material of which the bowl is constructed.

With the foregoing objects and to others which may hereinafter appear, the invention consists of the novel construction, combination and arrangement of parts as will be more specifically referred to and illustrated in the accompanying drawing, wherein is disclosed an embodiment of the invention, but it is to be understood that changes, variations and modifications may be resorted to which fall within the scope of the invention as claimed.

In the drawing:

Figure 1 is a detail side elevation partly broken away and in vertical section of a toilet bowl or seat having clean-out means constructed according to an embodiment of this invention incorporated therewith,

Figure 2 is a vertical section through substantially the center of the clean-out closure with the closure in applied position on the bowl which is shown in fragmentary vertical section,

Figure 3 is an enlarged fragmentary sectional view of a portion of the clean-out closure,

Figure 4 is an enlarged fragmentary sectional view showing the manner of securing the escutcheon plate on the outer side of the cover, and

Figure 5 is a detail front elevation of the clean-out closure.

Referring to the drawing, the numeral 10 designates generally a toilet bowl or seat which is provided with a trap 11 and a discharge duct 12 which is separated from the trap 11 by a partition or wall 12. The trap 11 communicates with a chamber 14 in the upper front portion of the bowl 10 and the bowl 10 is provided with an arcuate front wall 15 for the trap chamber 14.

In order to provide a means whereby the trap 11 and the discharge duct 12 may be cleaned out, I have provided an opening 16 in the front wall 15 of the bowl 10. This opening 16 communicates with the chamber 14 and a plate 17 is adapted to engage against the inner surface of the front wall 15. This plate 17 is of concavo-convex configuration with the convex side thereof outermost and engaging the marginal portions of the opening 16. The plate 17 is substantially oval or elliptical in front elevation and an oval flange 18 is secured to the plate 17 inwardly of the marginal edge portions thereof. This oval flange 18 is adapted to snugly engage within the opening 16 as shown in Figure 2. A bolt 19 has the head 20 thereof fixed as by soldering or welding to the central portion of the closure plate 17 and the bolt 19 projects outwardly through the opening 16. A cover 21 which is provided with a marginal flange 22 is adapted to engage the outer side of the front wall 15. The cover 21 has a center opening 23 in which the bolt 19 is received. A nut 24 is threaded onto the bolt 17 and engages against the cover 21 so as to tightly hold the cover 21 on the front wall 15. The inner edge or marginal edge of the flange 22 has a configuration substantially coincident with the configuration of the front wall 15 so that the flange 22 will snugly and tightly engage against the outer surface of the front wall 15. The bolt 19 at its outer end is provided with a threaded bore 25 in which a screw 26 is threaded. A face plate or escutcheon 27 engages about the bolt 19 and the head 28 of the bolt 26 tightly holds the plate 27 on the outer side of the cover 21. The plate 27 is of dished or cup-shaped construction so that the nut 24 will be received therein as shown in Figure 2.

A gasket 29 is interposed between the plate 17 and the inner side of the front wall 15 of the bowl, the gasket 29 being constructed of rubber or like resilient or elastic material. The gasket 29 engages about that portion of the plate 27 projecting beyond the oval flange 18 and which constitutes a flange integral with the plate 17. A cushioning gasket 30 of fibrous construction in the form of a wick packing or the like is interposed between the plate 17 and rubber gasket 29.

The use of this wick packing provides a more resilient construction so that the plate 17 may be more tightly engaged with the wall 15 and so that in the event any moisture contacts with the gasket 29 the gasket 30 will swell up and act as a cushioning and a sealing means for the closure.

In the use of this device, the closure or clean-out plug will normally be disposed in the position shown in Figures 1 and 2. In the event it is desired to clean out the trap 11 or the discharge duct 12, the screw 26 is loosened so as to permit access to the holding nut 24. This nut is then loosened so that the cover 21 may be removed and the plate 17 may then be removed by turning this plate at substantially right angles in order to permit the withdrawal of the plate 17 through the opening 16. The opening 16 in the front wall 15 of the bowl 10 is so positioned that easy access may be had to the trap 11 and the clean-out duct 12. In this manner the trap 11 and the duct 12 may be thoroughly cleaned without removing the bowl 10 from the floor as is at present the case, or without projecting a flexible clean-out member through the upper portion of the bowl.

What I claim is:

In a toilet bowl provided with a clean-out opening in the front wall thereof communicating with the trap, a closure for said opening comprising concavo-convex plate engageable against the inner face of the front wall and having a size substantially greater than the size of the opening, a flange carried by said plate snugly engaging in said opening, a threaded bolt fixed to the central portion of said plate, a flanged cover provided with a bolt opening, a holding means threaded onto said bolt for clamping the cover against the outer side of said front wall and simultaneously clamping said plate against the inner side of said front, a shield about said holding means, and a screw threaded into said bolt for holding said shield in applied position.

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