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L. I. CLARK

2,277,388

QUICK DETACHABLE FLUSH VALVE SEAT

Filed April 12, 1941

Fig. 1.

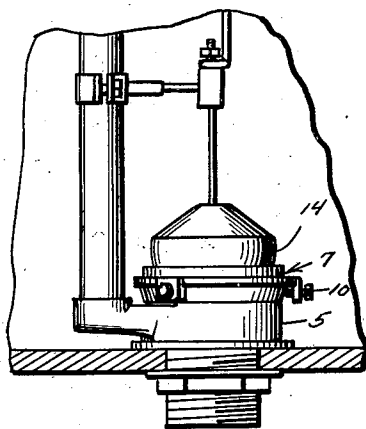


Fig. 2.

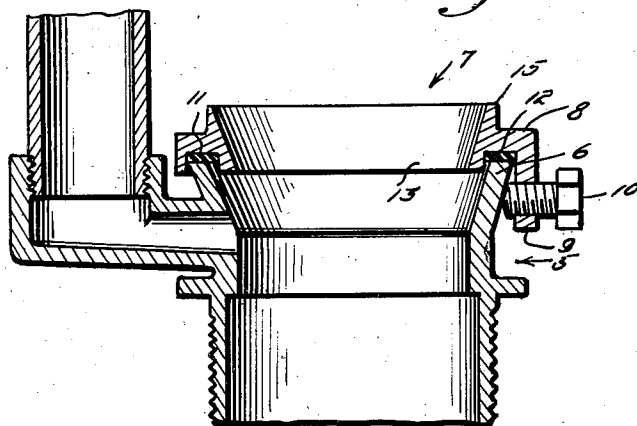


Fig. 3.

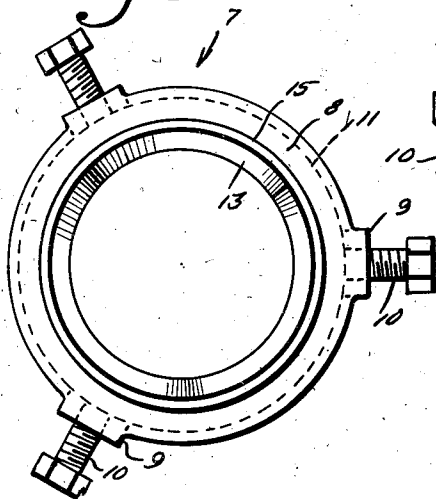
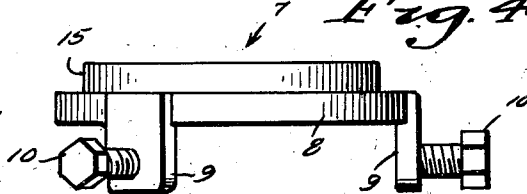


Fig. 4.



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QUICK DETACHABLE FLUSH VALVE SEAT

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1 Claim. (Cl. 4—57)

My invention relates to improvements in the flush valves of toilet tanks, and the like, and particularly to a quick detachable seat for the flush valve which is readily and easily replaceable when worn, making unnecessary the time consuming and laborious operation usually required for the repair or replacement of such seats.

Other important objects and advantages of my invention will be apparent from a reading of the following description taken in connection with the appended drawing, wherein for purposes of illustration I have shown a preferred embodiment of my invention.

In the drawing:

Figure 1 is a fragmentary vertical sectional view taken through a toilet tank showing the present seat associated with the flush valve mechanism.

Figure 2 is an enlarged fragmentary transverse vertical sectional view taken through the flush valve and the seat associated therewith.

Figure 3 is a top plan view of the seat per se.

Figure 4 is a side elevational view of Figure 3.

Referring in detail to the drawing, the numeral 5 generally designates the flush valve fitting of substantially conventional form which is provided with a flaring upper end 6 upon which is mounted the quick attachable seat 7 which comprises an annulus 8 from the peripheral portion of which depend lugs 9 at substantially equally circumferentially spaced intervals, each lug being provided with a radially inwardly projectible bolt 10 to engage under the overhang of the flaring upper portion 6 of the casting 5 as indicated in Figure 2 of the drawing to hold the seat 7 quick detachably in place.

The annulus 8 is only sufficiently larger in diameter than the flaring upper end 6 of the casting to provide for an annular groove 11 circumferentially formed in its bottom adjacent its peripheral edge to accept the annular gasket 12 which is to sealingly engage the upper edge of

the casting 5 as shown in Figure 2. The lugs 9 depend around the upper edge of the casting with comparatively little spacing between them and the outer surface of the said casting.

Formed on the radially inward edge of the annulus 8 is the beveled surface 13 which forms the seating surface for the flush valve ball 14, shown in Figure 1 in closed position. An annular extension 15 rising from the radially inward edge of the annulus 8 provides for a substantial vertical extension of the surface 13.

It will be obvious that with the valve seat 7 in place it can be removed for repair or replacement simply by loosening the bolts 10 and lifting the same out of place. Similarly a valve seat 7 may be put in operative position simply by seeing that the bolts 10 are sufficiently withdrawn to clear the upper end of the casting 5 and the seat then dropped in place over the casting, and the bolts 10 tightened.

Although I have shown and described herein a preferred embodiment of my invention, it is to be definitely understood that I do not wish to limit the application of the invention thereto except as may be required by the scope of the subjoined claim.

Having described the invention, what is claimed as new is:

In a flush valve seat having an upwardly flaring upper end, a detachable seat comprising an annular member having a wide base part formed with an annular groove in its lower face, for receiving the upper end of the flaring part of the first seat forming part, the inner periphery of the annular member sloping downwardly and inwardly to form a valve receiving seat, lugs depending from the outer portion of the base part and having transversely arranged threaded holes therein and screws passing through the holes and engaging the outer circumference of the flaring part of the first seat for holding the second seat on the first seat, and a gasket in the groove.

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