Feb. 11, 1930. A. M. BONIN, JR 1,746,303

SEAT FOR TOILET BOWLS

Filed April 6, 1928 2 Sheets-Sheet 1

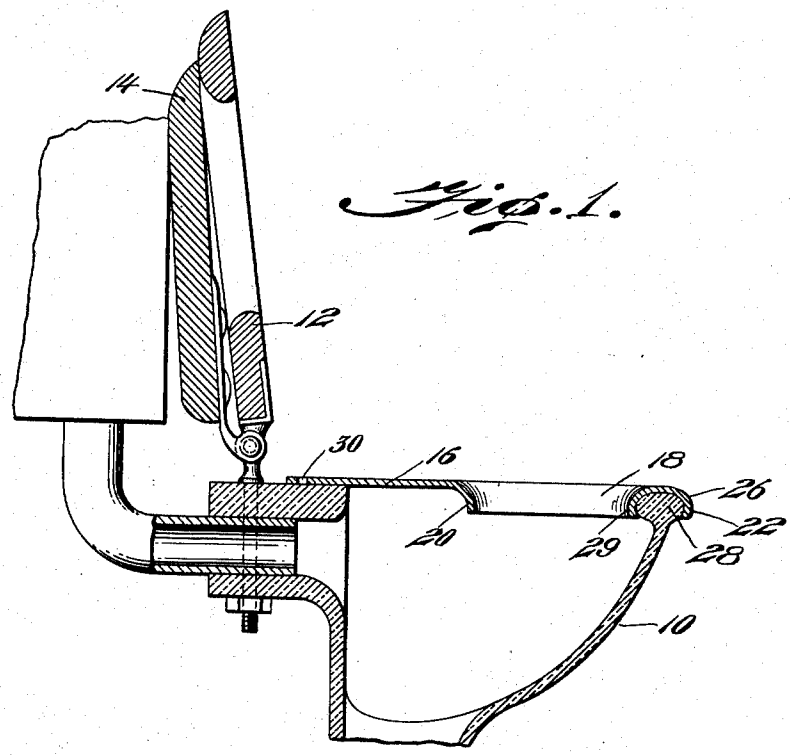


Fig. 1.

Fig. 2.

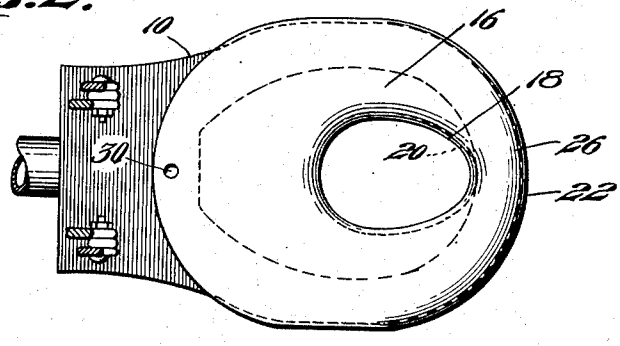
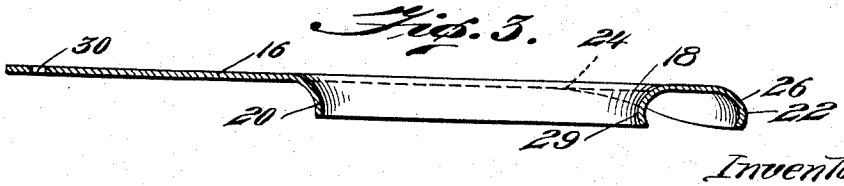


Fig. 3.



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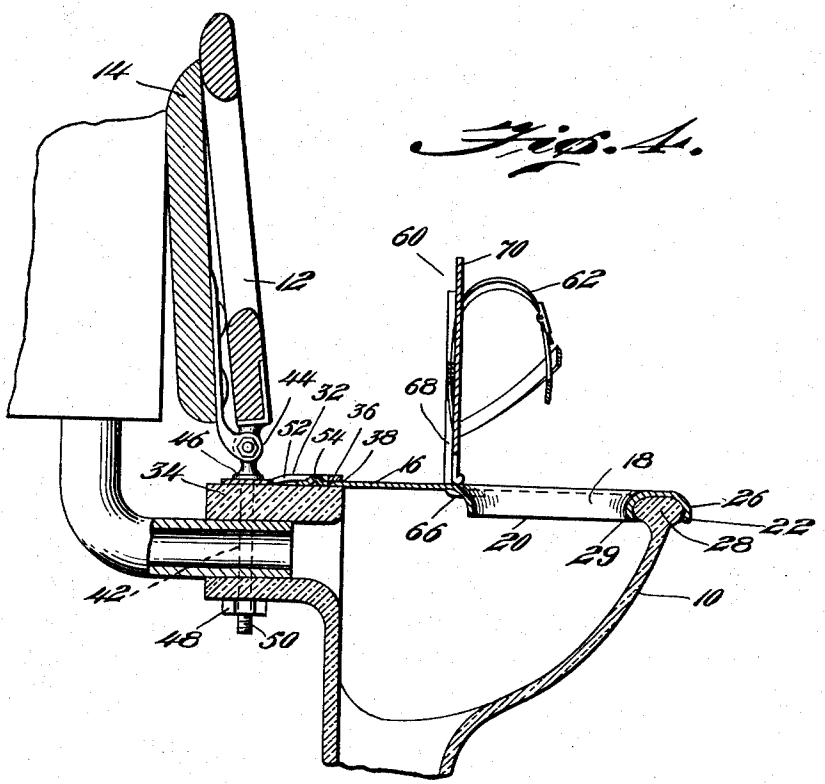


Fig. 4.

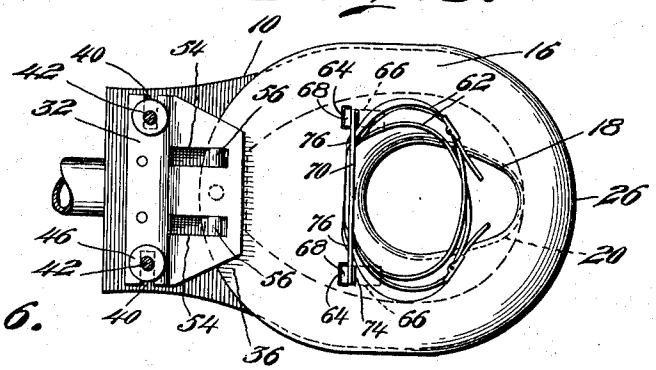


Fig. 5.

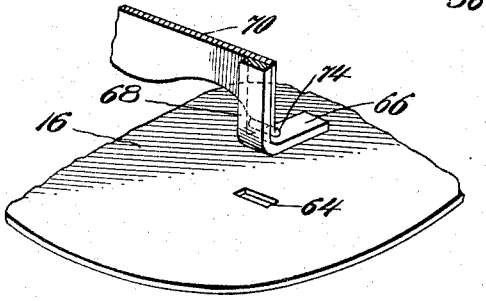


Fig. 6.

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UNITED STATES PATENT OFFICE

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SEAT FOR TOILET BOWLS

Application filed April 6, 1928. Serial No. 267,948.

My invention relates to seats for toilet bowls particularly of the detachable supplemental type particularly adapted for use for children. This application is a continuation in part of my former application Serial No. 208,873, filed July 27, 1927 for seats for toilet bowls. While I am aware that others have provided supplemental seats for children for toilet bowls, so far as I am aware they have not been constructed with any particular reference to the physical characteristics of the child. The present invention comprises a supplemental bowl seat designed primarily for the comfort of the child, which may be readily fabricated out of pressed sheet metal and provided with the integral means to secure it to the open bowl top.

In my preferred embodiment, I provide the seat itself with means to secure it to said open bowl top against lateral movement thereon and I provide means thereon to prevent it from forward and backward movement on said open bowl. It has preferably wedge means to resiliently straddle a bowl edge.

A further object of my invention is to provide a detachable back rest securable to said seat in rear of the usual aperture preferably provided with means attached thereto to strap a child thereto. Particularly when this type of back rest is employed, it is desirable to secure the seat to the open bowl end against forward tilting movement thereon, and further objects of my invention relate to the provision of suitable means for this purpose.

Further features of my invention relate to the specific means I preferably employ to secure said seat to said bowl top against tilting forward movement thereon and the specific means I preferably employ to detachably secure said back rest to the seat.

A further object of my invention is to provide a detachable seat for closet bowls which, except for the aperture therein, will substantially completely cover the open bowl top to thereby prevent the passage of obnoxious odors from within the bowl. Former types have generally comprised some sort of a loose fitting attachment adapted to rest on top of the adult seat, thereby permitting escape into the room of the obnoxious odors.

In my preferred embodiment, I preferably locate the child's aperture near the front of the bowl top so that the child's legs may readily hang down therefrom. For a purpose which is obvious, I preferably surround the aperture with an integral downward lip. To secure said seat against rearward movement on the bowl top, I preferably provide the outer end thereof with a downturned lip spaced substantially the width of the bowl edge from the front of said aperture lip to resiliently wedgedly bind said seat to said bowl edge. Thus the aperture lip performs an additional function of acting as the rear end of a wedge to clamp the seat to the open bowl end.

These and such other objects of my invention as may hereinafter appear will be best understood from a description of the accompanying drawings which illustrate various embodiments of my invention.

In the drawings, Fig. 1 is a longitudinal sectional view of a toilet bowl having a form of detachable seat constructed in accordance with the principle of my invention attached thereto.

Fig. 2 is a plan view thereof.

Fig. 3 is a longitudinal sectional view through the detachable seat itself.

Fig. 4 is a longitudinal sectional view of a toilet bowl having the preferred embodiment of my invention attached thereto.

Fig. 5 is a plan view thereof.

Fig. 6 is a detailed perspective view illustrating the specific means I preferably employ to detachably secure the back rest to the seat.

In the drawings, wherein like characters of reference generally indicate like parts throughout, 10 illustrates an ordinary closet bowl having the usual adult seat 12 suitably pivoted thereon and usual cover 14 pivotally mounted so as to lie on top thereof in closed position. My improved detachable supplemental seat 16 comprises the seat 16 constructed of suitable material, preferably of pressed sheet metal which may be readily sterilized, having the area of the top thereof substan-

tially the area of the open bowl top. The seat 16, as shown in Fig. 1, is adapted to be laid on top of the open bowl top below the usual adult seat 12 to substantially completely cover the open bowl top for the purpose, as explained, of preventing the escape of obnoxious odors.

The seat 16 is provided with an aperture 18, preferably of a smaller size, suitable for a child or baby, and preferably located near the front thereof so that the child's legs may readily hang over the front edge of the bowl. The wall of the seat 16 surrounding said aperture is down-turned to provide the down-turned lip 20 for the purposes explained. Said seat 16 also has the outer end thereof downwardly bent to form the down-turned lip 22 which extends as shown in Fig. 3 from diametrically opposite points 24 in the sides thereof opposite the aperture 18 to compactly fit over the exterior of the rounded edge of the bowl to secure said seat from lateral movement on the bowl. The front edge 26 of said lip is spaced substantially the width of the bowl edge 28 as shown in Fig. 1 from the front 29 of said aperture lip 20 and, as explained, said seat is preferably constructed of resilient pressed sheet metal or other resilient material, said cooperating spaced down-turned lips 29 and 22 form means preferably resilient wedge means to bind said seat 16 to said bowl edge to prevent it from forward and backward movement thereon.

The embodiment hitherto described, shown in Figs. 1 to 3, comprises a standard type of seat constructed according to the principles of my invention. In Figs. 4 to 6 I have shown the preferred embodiment of my invention which also has preferably mounted thereon a detachable back rest for the child and is adapted to cooperate with means mounted on the rear wall of the bowl to secure said supplemental seat against forward tilting movement thereon. In the embodiment shown in Figs. 1 to 3 where this last mentioned means is not employed, the seat 16 may be provided with the hole 30 in the rear end thereof so the seat when not in use on a closet bowl may be readily hung on an adjacent hook.

While any suitable type of means may be employed to secure the seat 16 to said bowl top against forward tilting movement thereon, I preferably mount the plate 32 on top of the rear bowl wall 34 so as to project forwardly therefrom spaced from the top of said wall 34 substantially the thickness of the seat 16, whereby on insertion of the rear end 36 of said seat 16 in the slit 38 formed between the top of said rear bowl wall 34 and said plate 32 said seat 16 may be secured to said bowl against forward tilting movement thereon. In my preferred embodiment, the plate 32 is preferably permanently secured to the bowl cover pivoting means by providing the transverse slots 40 therein at each end thereof adapted to receive the pivot bolts 42 of said cover pivoting means 44 and to be clamped by the bearings 46 thereof to the top of the upper bowl rear wall 34 when the nuts 48 are threadedly attached to the lower ends 50 of the pivot bolts, 42 as usual. Thus the plate 32 is adapted to be permanently attached to the bowl rear wall 34. In order to additionally prevent the seat 16 from forward and rearward movement on said open bowl top, the plate 32 which, as shown in Fig. 4, is upturned as at 52 substantially centrally thereof to form the slit 38, and is provided with the slot 54, preferably two spaced slots as shown in my preferred embodiment in the front portion thereof. The rear end 36 of said plate 16 is provided with a protuberance 56, two, as shown in the drawings, adapted to register in said slots 54 in the plate 32, after the rear end 36 of the plate 16 is resiliently pushed backwards within said slit 38. It is thus obvious that the plate 32 when the seat 16 is inserted within the slit 38 will prevent the seat 16 from forward tilting movement on said bowl and when it is desired to remove the seat it is obvious that the plate 32 will spring sufficiently to permit forward withdrawal of the seat 16 from the slit 38 and the protuberances 56 to spring out of the slots 54, and vice versa for insertion thereof.

I also provide a back rest 60 detachably securable to said seat preferably in rear of the aperture 18 and so far as I am aware I am the first to provide a detachable back rest for this purpose. The back rest 60 is provided with any suitable type of strap means 62 to strap a child thereto, the form shown in the drawings being somewhat similar to a Sam Browne belt. To detachably secure the back rest 60 to the seat 16 in the embodiment shown in Figs. 4 to 6, I preferably provide the seat 16 with the slots 64 spaced laterally from each other substantially the width of the aperture intermediate said protuberances 56 and aperture 18. I provide the back rest 60 with legs 66 laterally spaced from each other the same distance as the slots 64, projecting forwardly from the lower end thereof at right angles therefrom adapted to be inserted through said spaced slots 64 in the seat 16 and underlie said supplemental seat. While said legs 66 may be constructed integrally with the back plates 60, as shown in Figs. 4 to 6, the legs 66 preferably comprise the lower end of supporting posts 68, projecting vertically upwardly from said legs 66 and having the separate back plate 70 soldered, spot welded or otherwise attached to the front thereof. I also provide arms 74 of lesser length also projecting forwardly from said back rest spaced vertically upwardly from the legs 66 substantially the width of the seat 16 to firmly clamp said back rest to said seat. In my

preferred embodiment said arms 74 preferably comprise the upturned lower ends 74 of the separate back plate 70. The back plate 70 is provided with suitable holes 76 through which the strap means 62 may be suitably threaded. It is thus apparent that the back rest 60 may be readily inserted in said seat by bringing it first into substantial parallelism with said seat, inserting the legs 66 through said slots 64 and tilting the back rest 60 upwards until the legs 66 abut the lower edge of the seat 16 in front of said aperture and said arms 74 tightly abut the upper edge of said seat 16 to clamp said back rest to said seat. In order to remove the back rest, it is only necessary to forcibly tilt the back rest 60 forward, the arms 74 giving sufficiently, when the legs 66 may be readily withdrawn from said aperture.

It is thus apparent that I have provided a detachable seat for toilet bowls adapted when in use to completely cover the open bowl top underneath the usual adult seat and capable of being constructed integrally of pressed sheet metal having means thereon to clamp said seat to a bowl edge and to prevent it from lateral, forward or rearward movement thereon, and that I have provided in combination with this type of seat, means to secure said seat to said bowl top against forward tilting movement thereon and a back rest adapted to be detachably secured to said seat.

It is understood that my invention is not limited to the specific embodiments shown and that various deviations may be made therefrom without departing from the spirit and scope of the appended claims.

What I claim is:

1. A detachable supplemental seat for toilet bowls, comprising a resilient pressed sheet metal bowl cover of substantially the size of the open bowl top adapted to be inserted thereon below the adult seat to substantially completely cover said open bowl and having a child's aperture therein near the outer end thereof having a surrounding downturned lip, said seat also having the outer end thereof terminating in a downturned lip extending from diametrically opposite points in the sides thereof opposite said aperture to prevent said seat from lateral movement on said bowl and spaced substantially the width of a bowl edge from said aperture lip to resiliently wedgedly bind said seat to said bowl edge and prevent it from forward and backward movement thereon.

2. A detachable supplemental seat for toilet bowls, comprising a bowl cover of substantially the size of the open bowl top adapted to be inserted thereon below the adult seat to substantially completely cover said open bowl and having a child's aperture therein having a surrounding downturned lip, said seat also having the outer end thereof terminating in a downturned lip spaced substantially the width of a bowl edge from said aperture lip to resiliently wedgedly bind said seat to said bowl edge and prevent it from forward and backward movement thereon.

3. A detachable supplemental seat for toilet bowls, comprising a bowl cover of substantially the size of the open bowl top adapted to be inserted thereon below the adult seat to substantially completely cover said open bowl top and having an aperture therein and means thereon to wedgedly engage a bowl edge to firmly secure said seat to said bowl top.

4. In combination, an open toilet bowl, a detachable supplemental seat for said toilet bowl, comprising a resilient pressed sheet metal bowl cover of substantially the size of the open bowl top adapted to be inserted thereon below the adult seat to substantially completely cover said open bowl and having a child's aperture therein near the outer end thereof having a surrounding downturned lip, said seat also having the outer end thereof terminating in a downturned lip extending from diametrically opposite points in the sides thereof opposite said aperture to prevent said seat from lateral movement on said bowl and spaced substantially the width of the bowl edge from said aperture lip to resiliently wedgedly bind said seat to said bowl edge and prevent it from forward and backward movement thereon, a protuberance therein near the rear end thereof and spaced slots therein intermediate said protuberance and aperture, a plate secured to the bowl cover pivoting means adapted to overlie the rear end of said supplemental seat in offset relationship to the top of the bowl rear wall and having a slot therein adapted to receive said protuberance to secure said supplemental seat against forward tilting movement and a detachable back rest having strap means to secure a child thereto and laterally spaced legs at the lower end thereof projecting forwardly at right angles therefrom adapted to be inserted through said spaced slots in the supplemental seat and underlie said supplemental seat and arms of lesser length also projecting forwardly therefrom spaced vertically upwardly from said legs substantially the width of the seat to firmly clamp said back rest to said seat.

5. In combination, an open toilet bowl, a detachable supplemental seat for said toilet bowl, comprising a bowl cover of substantially the size of the open bowl top having a child's aperture therein, a protuberance therein near the rear end thereof and spaced slots therein intermediate said protuberance and aperture, a plate secured to the bowl cover pivoting means adapted to overlie the rear end of said supplemental seat in offset relationship to the bowl rear wall, and having a slot therein adapted to receive said pro-

tuberance to secure said supplemental seat against forward tilting movement and a detachable back rest having strap means to secure a child thereto and laterally spaced legs at the lower end thereof projecting forwardly at right angles therefrom adapted to be inserted through said spaced slots in the supplemental seat and underlie said supplemental seat and arms of lesser length also projecting forwardly therefrom spaced vertically upwardly from said legs substantially the width of the seat to firmly clamp said back rest to said seat.

6. In combination, an open toilet bowl, a detachable supplemental seat for said toilet bowl, comprising a bowl cover of substantially the size of the open bowl top, having a child's aperture therein, and spaced slots therein in rear of said aperture, and a detachable back rest having strap means to secure a child thereto and laterally spaced legs at the lower end thereof projecting forwardly at right angles therefrom adapted to be inserted through said spaced slots in the supplemental seat and underlie said supplemental seat and arms of lesser length also projecting forwardly therefrom spaced vertically upwardly from said legs substantially the width of the seat to firmly clamp said back rest to said seat.

7. In combination, an open toilet bowl, a cover therefor, means to pivotally mount said cover on the rear end of said bowl, a detachable supplemental seat for said toilet bowl, comprising a bowl cover of substantially the size of the open bowl top, having an aperture therein and a protuberance therein near the rear end thereof, a plate secured to the bowl cover pivoting means adapted to overlie the rear end of said supplemental seat in spaced relationship to the top of the bowl rear wall and having a slot therein adapted to receive said protuberance to secure said supplemental seat against forward tilting movement.

8. In combination, an open toilet bowl, a detachable seat for said bowl having an aperture therein, and a forwardly projecting plate mounted on the rear wall of said bowl spaced from the top of said wall substantially the thickness of said seat whereby on insertion of the rear end of said seat on the slit formed between the top of said rear bowl wall and said plate said seat may be secured to said bowl against forward tilting movement thereon.

9. In combination, a toilet bowl seat having an aperture adapted to be mounted on an open bowl end and having spaced slots therein in rear of said aperture, and a detachable back rest having strap means to secure a child thereto and laterally spaced legs at the lower end thereof projecting forwardly at right angles therefrom adapted to be inserted through said spaced slots in the supplemental seat and underlie said supplemental seat and arms of lesser length also projecting forwardly therefrom spaced vertically upwardly from said legs substantially the width of the seat to firmly clamp said back rest to said seat.

10. In combination, a toilet bowl seat having an aperture adapted to be mounted on an open bowl end and having spaced slots therein in rear of said aperture, and a detachable back rest having laterally spaced legs at the lower end thereof projecting forwardly at right angles therefrom adapted to be inserted through said spaced slots in the supplemental seat and underlie said supplemental seat and arms of lesser length also projecting forwardly therefrom spaced vertically upwardly from said legs substantially the width of the seat to firmly clamp said back rest to said seat.

In testimony whereof I affix my signature.

ALFRED M. BONIN, JR.