Jan. 4, 1955 R. J. LYONS 2,698,440

WATER CLOSET DEVICE

Filed April 14, 1953

FIG. 1

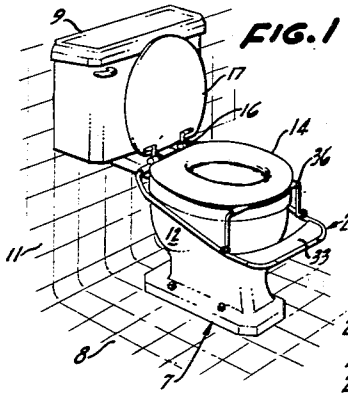


FIG. 2

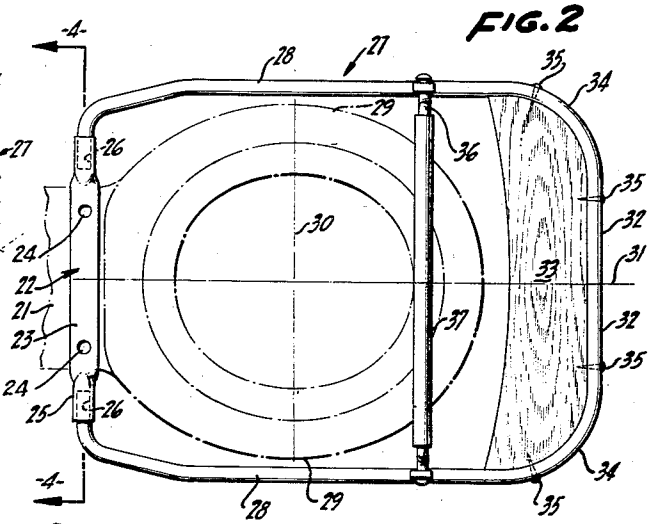
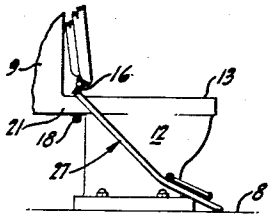


FIG. 6



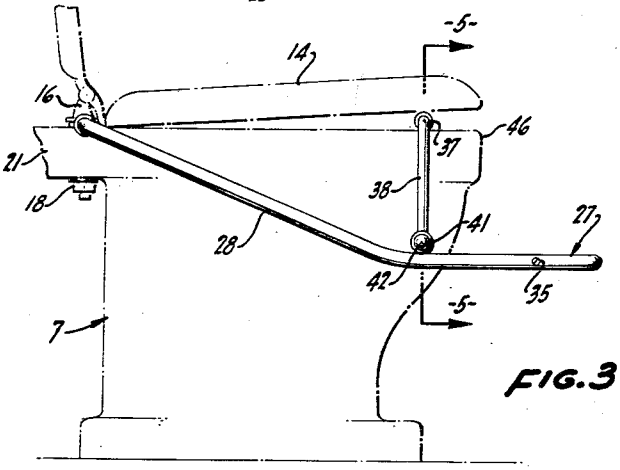


FIG. 3

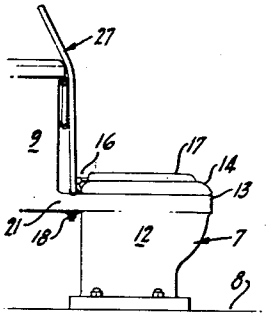


FIG. 7

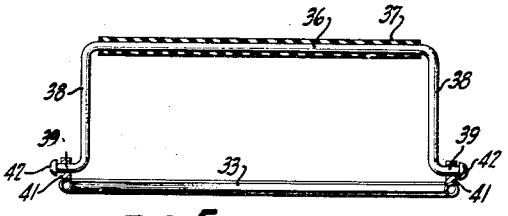


FIG. 5

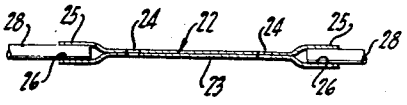


FIG. 4

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WATER CLOSET DEVICE

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4 Claims. (Cl. 4—254)

My invention relates to improvements in water closet foot and body rests.

In the interests of standardization, water closets are usually manufactured to dimensions commensurate with the size of an average adult person. Small people, and especially children, are discomforted thereby. Short persons often find it uncomfortable to use the average size toilet since at such times their feet do not touch the floor.

Furthermore, even though a user is tall enough to use the ordinary closet, it is believed by many people that there is hygienic value in supporting the feet above the floor at a point between the floor and seat level so that the forward portion of the thighs is somewhat elevated.

It is also believed that by tilting upwardly the forward end of the seat to form a support for the elevated forward portion of the thighs a more comfortable position is obtained and hygienic results effected.

It is therefore an object of my invention to provide a water closet device having a foot rest located between the floor and the seat for greater comfort of the user, and especially a user who is small in size.

It is another object of the invention to provide a water closet device having an elevated foot rest for use by larger persons, thereby offering a comfortable posture believed by many to be conductive to peristaltic action.

It is yet another object of the invention to provide a water closet device having a tilted or elevated seat for supporting the forward portion of the user's thighs in a position somewhat elevated with respect to horizontal.

It is a further object of my invention to provide a water closet device suitable for quick and easy installation on either existing or newly manufactured water closets by using ordinary hand tools.

It is a further object of my invention to provide a water closet device easily swingable from a position of use to a position upwardly or downwardly and out of way, or for purposes of cleaning; and as easily returnable to a position ready for use.

It is a yet further object of my invention to provide a water closet device which is strong and durable yet pleasing in appearance and economical to manufacture.

It is still another object of my invention to provide a generally improved water closet device.

Other objects, together with the foregoing, are attained in the embodiment of the invention described in the accompanying description and illustrated in the accompanying drawing, in which:

Figure 1 is an isometric view of a water closet having installed thereon, and in position for use, a device according to my invention.

Figure 2 is a plan view of the device and showing in outline the subjacent toilet bowl.

Figure 3 is a side elevation of the device installed and ready for use and showing, in outline, attendant closet structure.

Figure 4 is a cross-section along the plane indicated by the line 4—4 of Figure 2, a portion of the structure being broken away to reduce the extent of the figure.

Figure 5 is a cross-section along the plane indicated by the line 5—5 of Figure 3.

Figure 6 is a side elevation of an installed device and showing the device in a downward position.

Figure 7 is a view comparable to Figure 6 but showing the device in an upward position.

In its preferred form, my device is installed on a water closet 7 of the customary kind supported on a floor 8 and comprising the usual water tank 9 fastened to a wall 11

and a toilet bowl 12 surmounted by an elliptically shaped top rim 13. A toilet seat 14 is pivotally mounted adjacent the rear end of the bowl 12 by appropriate mounting means such as hinge fastenings 16. Similarly mounted and hinged is a seat cover 17. The hinge fastenings 16 are customarily secured to the bowl by a pair of through bolts 18 confined in openings passing vertically through a rearward extension 21 of the bowl rim 13.

Interposed between the hinge fastenings 16 and the rearward extension 21 of the bowl is a fulcrum member 22 or mounting bar conveniently fabricated of hollow tubing, having a flattened central portion 23 and a pair of openings 24 drilled therethrough for registry with the bowl openings. By taking up on the through bolts 18, the fulcrum member 22 is securely clamped between the hinge fastenings 16 and the rear of the bowl.

Inserted within a pair of sleeves 25, at the ends of the fulcrum member 22, are hinge pins 26 forming, with the sleeves 25, a pivot about which a framework 27 can swing.

The framework 27 comprises the hinge pins 26 and a pair of arms 28 extending forwardly therefrom and spaced from the widest portion 29 of the toilet seat 14 (the widest portion being along the minor axis 30 of the toilet seat and the toilet bowl). Adjacent the forward end of the bowl, the arms 28 curve inwardly to join each other at an axis of symmetry 31 or major axis of the bowl. The framework 27 thus substantially circumscribes the seat and bowl.

Preferably, adjacent each side of the axis of symmetry the arms are linear, forming a transverse foot bar 32 or foot rest for supporting the user's feet. To increase the foot support area, I provide a platform 33 conveniently fabricated of wood, and being securely confined between the foot bar 32 and an arcuately curved portion 34 of the arms, by fastenings 35.

Supporting the weight of the foot bar and the user's legs and feet is a cross bar 36 or support bar extending transversely across the rim adjacent the forward end of the bowl and being supported thereby when the device is in position for use. Covering the bar 36 is a sleeve 37 of rubber or plastic for deadening the sound and shock of contact between the bar and the bowl or seat. The sleeve also serves the beneficial purpose of holding the cross bar 36 in the proper position on top of the bowl. The sleeve likewise is helpful in that it effects a greater diameter of cross bar, and thus elevates the seat 14 more than would the bar itself.

Depending from the opposite ends of the cross bar 36 are a pair of legs 38 having their lower free ends outturned to form pins 39 pivotally mounted in eyes 41 mounted on the frame 27 adjacent the rearward ends of the foot rest platform 33. The eye and pin structure is susceptible of numerous variations according to the desires of the fabricator but in the embodiment illustrated, and as most clearly appears in Figure 5, I prefer to insert the pins into the eyes from the inner side of the eyes. By pressing the legs inwardly, then inserting the pins and allowing the legs resiliently to spring outwardly, both pins are placed in position. For enhanced appearance and to reduce transverse movement of the cross bar structure I provide a cap screw 42 in threaded engagement with a corresponding drilled and tapped opening at the outer end of each of the pins.

Owing to the rotatability of the hinge pins 26 and the frame 27 connecting thereto, with respect to the fulcrum member 22 and bowl, and owing to the pivoted construction of the support bar 36 and legs 38, the user of my device is enabled to swing the frame out of the way either to a downward position, as appears in Figure 6, or, to an upward position, as in Figure 7.

By slightly lifting the foot rest, until the bar 36 is clear to swing forwardly and over the forward end 46 of the bowl, the user can swing the frame downwardly to its lowered position. Or if the vertical position is preferred, the user, by lifting the foot rest upwardly and rearwardly, can swing the frame to its rearward vertical attitude. The device can be returned to its position of readiness for use by reversing the foregoing steps.

What is claimed is:

1. A water closet device for use with a toilet having a

bowl, a seat, and means for pivotally mounting said seat at the rear of said bowl comprising a mounting bar extending crosswise of said bowl and interposed between said mounting means and said bowl, a framework substantially circumscribing said bowl, means for pivotally connecting one end of said framework and said mounting bar, a foot platform extending crosswise of said bowl at the other end of said framework, means for securing said foot platform to said framework, a support bar resting on and extending crosswise of said bowl between said bowl and said seat, said support bar including depending ends forming legs at opposite sides of said bowl, and means for pivotally connecting said legs and said framework.

2. A water closet device for use with a toilet bowl mounted on a supporting surface and having an elliptically contoured top rim, comprising a longitudinally extended framework substantially circumscribing said rim, means for pivotally mounting said framework adjacent one end of said rim to swing from a first position extending vertically upward from said mounting means to a second position abutting said bowl supporting surface, a support bar parallel to the minor axis of said ellipse and supported by said rim, a pair of legs depending from the ends of said support bar, means for mounting said legs on opposite sides of said framework for suspension of said framework in a predetermined position intermediate said first position and said second position, and a toilet seat pivotally mounted at said one end of said bowl rim and swingable from a first position extending vertically upward from said seat pivot to a second position supported by said cross bar in said predetermined intermediate position of said framework.

3. In a water closet device for use with a toilet bowl having a top rim and a toilet seat pivotally mounted at

one end of said seat on said rim to swing about an axis transverse to the major axis of symmetry of said toilet bowl, the combination of a fulcrum member mounted on said rim adjacent said toilet seat pivot and having an axis parallel with said transverse axis, a support bar parallel with said transverse axis supported by said rim and supporting the other end of said toilet seat in an elevated position, a pair of legs depending from the ends of said support bar, an elongated framework substantially circumscribing said bowl, said framework including a pair of pins inwardly turned to engage in corresponding ends of said fulcrum member for pivoting therein and said framework including an intermediate transverse portion disposed across the other end of said rim to form a foot rest, means for pivotally connecting said depending legs to said framework, and a foot platform enlarging said transverse portion.

4. A water closet device comprising, in combination, a toilet bowl, a toilet seat, means for fastening said seat to said bowl at one end of said bowl, mounting means having pivot sleeves at each end clamped to said bowl by said fastening means, a tubular frame comprising a horizontal foot rest member extending across and spaced from the other end of said bowl, a pair of arms extending from each end of said horizontal member rearwardly and upwardly toward said fastening means on each side of said bowl, the ends of said arms being inwardly turned for pivotal engagement with said pivot sleeves, a tubular support member extending across said bowl, and means for pivotally connecting said tubular member to said arms, said tubular member being interposed between said bowl and said seat and being effective to elevate said seat.

No references cited.