

Dec. 12, 1939.

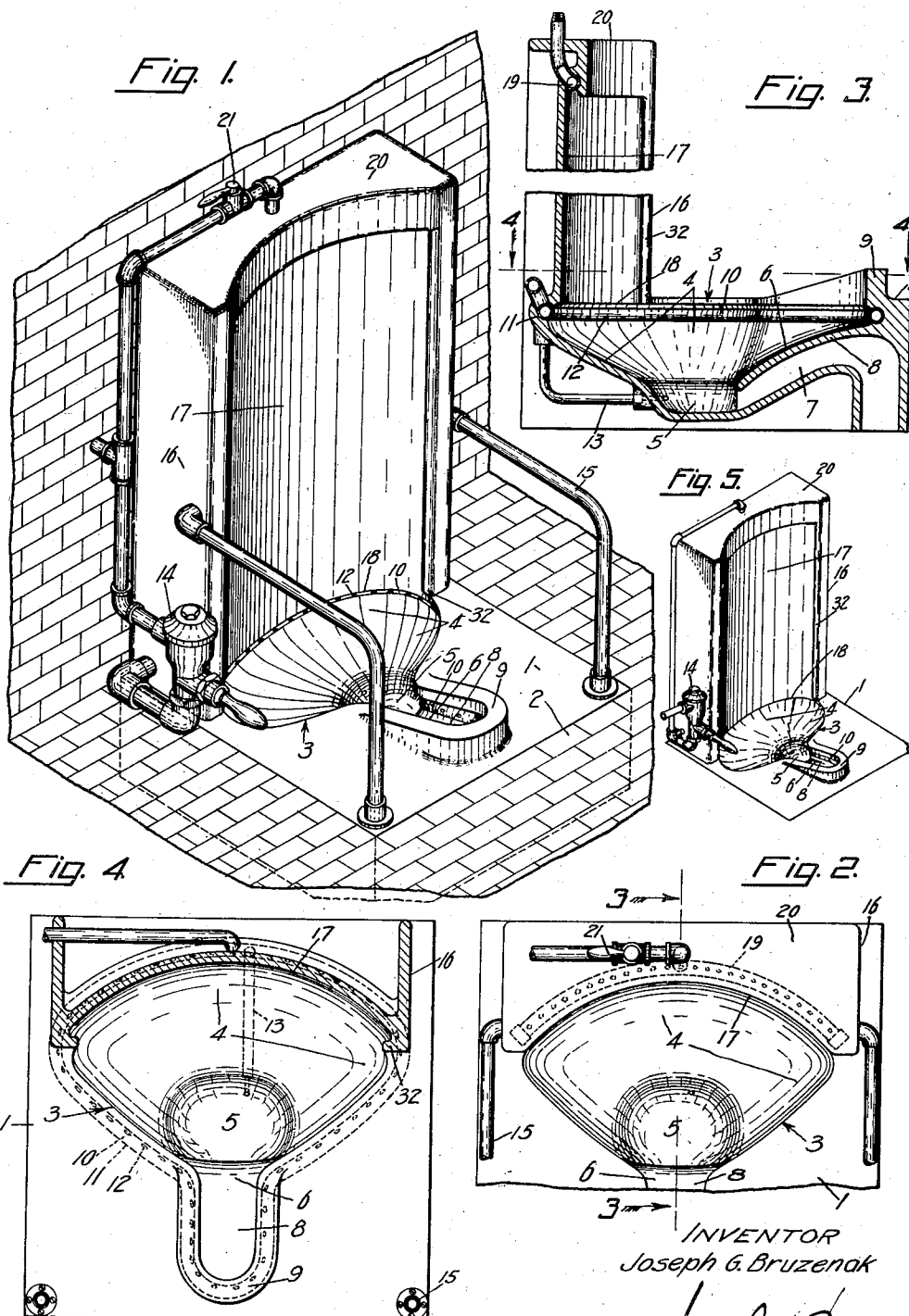
J. G. BRUZENAK

2,182,979

TOILET

Filed Oct. 14, 1938

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

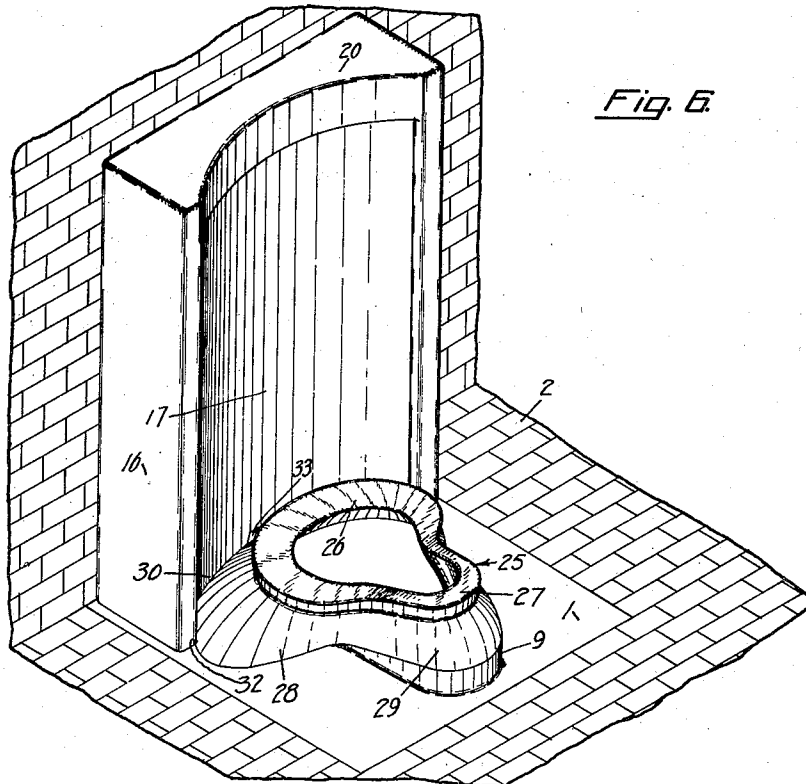
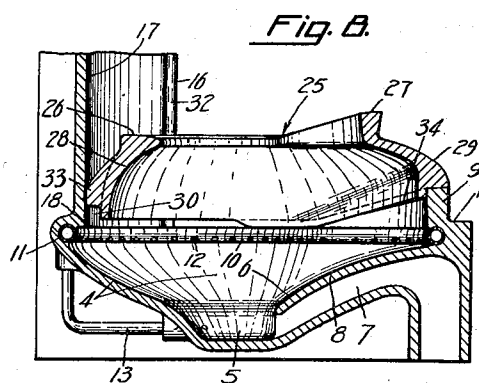
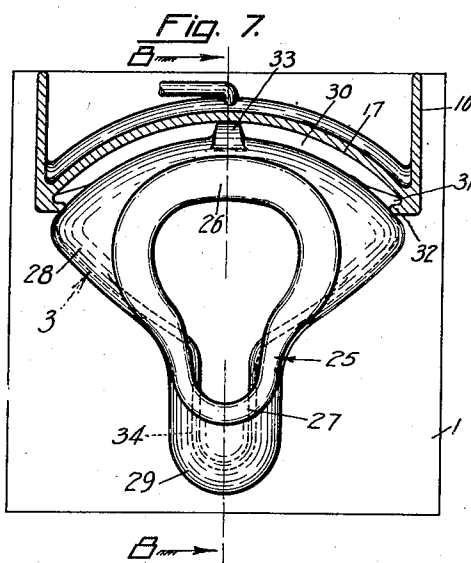


Fig. 6



INVENTOR
Joseph G. Bruzenak

By *[Signature]*
ATTORNEY

UNITED STATES PATENT OFFICE

2,182,979

TOILET

Joseph G. Bruzenak, New Britain, Conn.

Application October 14, 1938, Serial No. 235,010

15 Claims. (Cl. 4-104)

My invention relates to toilets.

It has among its objects to provide an improved toilet of the squat type. A further object of my invention is to provide such a toilet which, while particularly adapted to use in industrial establishments or public places, is also adapted to use in homes, if desired. A still further object of my invention is to provide such an improved construction which, while enabling the advantages of natural posture to be obtained, is also of a simple and inexpensive construction and entirely sanitary, while also being adapted to be readily cleansed. These and other advantages of my improved construction will, however, hereinafter more fully appear.

In the accompanying drawings, I have shown for purposes of illustration two embodiments which my invention may assume in practice.

In these drawings:

Figure 1 is a perspective view of an installation including a preferred form of my invention, the same being built into a floor;

Fig. 2 is a top plan view of the structure shown in Figure 1, with some parts omitted;

Fig. 3 is a vertical section on line 3-3 of Figure 2;

Fig. 4 is a transverse section on line 4-4 of Figure 3;

Fig. 5 is a detail view showing a modified form of connection wherein the same flush valve controls the supply for both the bowl and the urinal;

Fig. 6 is a view similar to Figure 1 showing a modified construction, the water supply and hand rails being omitted to facilitate illustration;

Fig. 7 is a top plan view of the construction shown in Figure 6, and

Fig. 8 is a vertical sectional view of the lower end of this construction, the section being on line 8-8 of Figure 7.

In the construction shown in Figures 1 to 4, it will be noted that I have shown a toilet comprising a base 1, preferably of porcelain or other suitable vitreous material and embedded so as to be flush with a floor 2; this member 1 having embodied therein an improved toilet of the squat type, as hereinafter described.

Referring more particularly to the base 1, it will be observed that the same is provided with a rearwardly located receptacle or bowl 3 of generally elliptical shape and disposed transversely of the base at the back thereof with its ends adjacent the side edges of the base. This bowl 3 herein has sloping side and rear walls 4 leading downward to a bottom pocket 5 disposed adja-

cent the front of the bowl and just below a front sloping wall 6 which is, in turn, disposed over an outlet passage 7 through which the contents of the bowl is flushed. Further, it will be noted that the wall 6 is extended forward from the pocket 5 in such manner as to form an apron 8 sloping down toward that pocket and confined within an upstanding forwardly and upwardly sloping curved wall 9 rising from the surface of the base 1 around the apron 8. Herein a flush pipe 10 is also disposed in a suitable groove 11 extending around the bowl 3 and also around the edges of the apron 8, this pipe being horizontally disposed as indicated, and provided with suitable outlets 12 adapted to provide a flushing flow over the entire area of the combined bowl 3 and urinary apron 8. Here also it will be noted that a pipe 13 opens into the pocket 5 at one side of the axis thereof in a usual manner, to produce a rotary motion or whirl of the contents thereof and cooperate with the flushing water from the pipe 10 in such manner as effectively to cleanse the bowl and discharge its contents through the outlet 7. Obviously, a suitable type of control mechanism, as, for example, a standard type of flush valve 14, may control the water supply, the same herein being disposed closely adjacent the level of the base 1 and at one side in a convenient position to be reached by the user in squatting position on the base. Here also it will be noted that, if desired, hand rails 15 are provided on each side of the base, these rails herein rising from the front edge of the base and being suitably attached at the back to the sides of a vertical back member 16, preferably centrally and longitudinally grooved, as indicated at 17.

As a result of my improved construction, it will be evident that the user may squat in natural posture with his feet on opposite sides of the wall 9. As a result of the improved arrangement of the bowl 3, the latter will obviously function satisfactorily as a receptacle under all conditions, and be satisfactorily flushed and cleansed by the water supplies provided, while the apron 8 will serve as a urinal duct, while also being cleansed when the toilet is flushed. Attention is also directed to the fact that the wall 9 is such as effectually to prevent soiling of the base or of the user's feet under all conditions, while the whole device is obviously so disposed that it may be readily cleansed; the surface 1 of the base being, in effect, a part of the floor 2, and the bowl 3 and the urinary apron 8 being readily accessible for cleansing.

In a preferred form of my invention, especially adapted for use in industrial establishments or public places, the back member 16 is in the form of a urinal, and the grooved portion 17 provides the usual vertical urinal surface. More particularly, it will be noted that this surface 17 empties directly into the bowl 3 at its bottom, the lower edge 18 of this surface 17 protruding slightly in front of the groove 11 in which the pipe 10 is disposed, and conforming to the curvature of the back of the bowl, all in such manner as to insure a free flow of liquid from the surface 17 into the bowl. Further, I have herein provided a suitably apertured flush pipe 19 inside the top 20 of the portion 16 and also provided a valve 21 in a connection to the main water supply, in such manner that by manipulation of this valve, the surface 17 may be flushed when desired, the bowl 3 then delivering into the discharge 7, while the bowl 3 may also be flushed by operation of the flush valve 14. Obviously, if desired, the flush valve 14 may also be so connected that this one valve will flush both the bowl 3 and the urinal surface 17, as, for example, by omitting the valve 21 and connecting the pipe 19 to the discharge side of the flush valve, as shown in Figure 5. In either event, it will be apparent that the flush valve 15 may be readily operated with the foot, if desired.

In Figures 6 to 8, I have illustrated a further modified construction which may be used if desired, as, for example, where there is initial objection to the use of the open squatting type toilet heretofore described, by those unfamiliar therewith. Thus, for example, in certain industrial or public places, one or more units of this modified type of toilet may be provided while the others are of the construction heretofore described. Herein, I have illustrated this construction as comprising an improved seat attachment adapted to be readily and quickly applied over the bowl previously described, without requiring any change in the latter. This seat herein is also of such improved low form as, while providing a minimum of contact with the body, to insure substantially natural posture and resultant health effects, in a measure comparable to those obtainable with the use of my preferred construction.

Referring more particularly to Figures 6 to 8, note that the seat, generally indicated at 25, is provided with a rearwardly located seat portion 26 disposed at such a height as only just to contact the buttocks when in a squatting position, without providing substantial support; the same, for example, being disposed approximately five inches above the top of the base 1. Further, it will be noted that a raised front portion 27 is provided generally conforming to the urinary apron 8, and that skirt portions 28 and 29, which are enlarged outwardly and downwardly, underlie the portions 26 and 27. Of these, the portion 28 conforms to the shape of the bowl 3 and is supported on the sides thereof and overlies the back thereof, while the portion 29 conforms to the wall 9 and is supported thereon. It will further be noted that the skirt 28 is spaced at the back, as illustrated at 30, from the surface 17 of the back 16, and that laterally extending lugs 31 fit within ribs 32 on the edge of the back, while a rearwardly and downwardly extended lug 33 may project from the back of the skirt 28 into engagement with the front face of the portion 17. Further, it will be observed that a flange 34 is provided around the bottom of the skirt 29 in such man-

ner as to provide a rib engaging the inner edge of the wall 9 and thereby prevent forward movement of the seat 25, while the engagement of projections 31, 33 with the surface 17 prevents rearward movement of said seat.

Obviously, this seat attachment may be placed over the bowl 3 of my improved squatting type toilet whenever desired, irrespective of whether the back 16 also forms a urinal, although, of course, the latter will not be capable of use as a urinal when the seat is in position. Thus, with standard equipment, such as shown in Figure 1, the seat attachment may be applied to certain units, the urinal back connections then being omitted. Further, the seat attachment may be readily removed when desired by simply raising the same and tilting it in such manner as to release the lugs 31 and permit the ready removal of the seat. It will also be evident that when in position, the entire seat, which also may be formed of a unitary vitreous material, may be readily and quickly cleansed. In use, it will further be evident that the seat will effectually protect the user, while in no way interfering with a natural posture.

While I have in this application specifically described certain embodiments which my invention may assume in practice, it will be understood that these forms of the same have been shown for purposes of illustration, and that the invention may be modified and embodied in other forms without departing from its spirit or the scope of the appended claims.

What I claim as new and desire to secure by Letters Patent is:

1. In a squat type toilet, a base having a bowl therein, a narrow forwardly projecting urinary apron leading downward to said bowl, and foot supports at the top of said base and at the top of said bowl on opposite sides of said apron and outside of and in front of said bowl.

2. In a squat type toilet, a base having a bowl therein, a narrow forwardly projecting urinary apron leading downward to said bowl, and foot supports on the top of said base on opposite sides of said apron and outside of and in front of said bowl, said apron having an open top and having a wall extending around the open top thereof and raised above the surface of said base and above the top of said bowl between said foot supports.

3. In a squat type toilet, a shallow base having a shallow bowl therein, a narrow forwardly projecting urinary apron leading downward to said bowl, and foot supports on the top of said base comprising lateral extensions of said top on opposite sides of said apron and outside of and in front of said bowl.

4. In a squat type toilet, a shallow base adapted to be disposed in a floor and having a top surface adapted to be disposed substantially at floor level and having a bowl therein, a narrow forwardly projecting urinary apron leading downward to said bowl, and foot supports on the top of said base on opposite sides of said apron and outside of and in front of said bowl.

5. In a squat type toilet, a base having a substantially flat top and a bowl therein, a narrow forwardly projecting urinary apron leading downward to said bowl, and foot supports on the top of said base on opposite sides of said apron and outside of and in front of said bowl, said bowl being centrally located relative to said apron, and said foot supports extending from the front edge of the top of said base toward the

front edges of the top of said bowl on opposite sides of said apron.

6. In a toilet, a shallow base of substantially less height than length or width and having a shallow bowl therein, means forming a discharge passage projecting forwardly and upwardly from the bottom of said bowl and then downwardly to form a trap within the vertical limits of said shallow base, and means forming an urinary apron projecting forwardly from said bowl above said discharge passage and leading downward rearwardly into said bowl.

7. In a squat type toilet, a base having a bowl in rear thereof, a narrow forwardly projecting urinary opening communicating with said bowl, and foot supports on said base on opposite sides of said opening and outside of and in front of said bowl, said base having an upstanding back member extending upwardly from the rear edge of said bowl providing a urinal surface and delivering into said bowl and spaced from said foot supports by said bowl.

8. In a squat type toilet, a base having in rear thereof a generally elliptical bowl having a curved rear edge, a narrow forwardly projecting urinary opening projecting beyond the front edge of said bowl and communicating with said bowl, and foot supports on said base on opposite sides of said opening and outside of and in front of said bowl, said base having an upstanding centrally and longitudinally grooved back member spaced from said foot supports by said bowl and extending upwardly from and conforming to the curved rear edge of said bowl.

9. In a squat type toilet, a base having a bowl in rear thereof, a forwardly projecting urinary opening communicating with said bowl, and foot supports on opposite sides of said opening in front of said bowl, said base having an upstanding back member extending upwardly from the rear edge of said bowl providing a urinal surface and delivering into said bowl, and flushing means having common control means at one side of said bowl and adjacent said base selectively operable by the user's hand when squatting over said bowl on said foot supports or by his foot when standing on said supports opposite said urinal.

10. In a squat type toilet, a base having a bowl therein, a narrow forwardly projecting urinary apron leading to said bowl, foot supports on said base on opposite sides of said apron and outside of and in front of said bowl, and a low seat providing minimum support while in squatting position on said foot supports and surrounding the edges of both said bowl and said apron.

11. In a squat type toilet, a base having a bowl

therein, a narrow forwardly projecting urinary apron leading to said bowl, foot supports on said base on opposite sides of said apron and outside of and in front of said bowl, and a low seat providing minimum support while in squatting position on said foot supports, and surrounding the edges of said bowl and said apron and having skirt portions seated around the edges of said bowl and a front skirt fitted around the edges of said apron.

12. In a squat type toilet, a base having a bowl therein, a narrow forwardly projecting urinary apron leading to said bowl, foot supports on said base on opposite sides of said apron and outside of and in front of said bowl, and a low seat providing minimum support while in squatting position on said foot supports, and surrounding the edges of said bowl and said apron and having skirt portions seated around the edges of said bowl and a front skirt fitted around the edges of said apron, said base having a grooved upstanding back member in rear of said bowl and said seat having abutment means engaging and locating said seat relative to said back member and said apron having a raised wall portion engaging abutment means on the front skirt.

13. A natural posture seat attachment for squat type toilets comprising a seat member having an enlarged rear portion and a smaller front portion and skirt portions depending from said portions and disposable on a base, said skirt portions being of a height adapted to minimize contact with said seat when the user is in squatting posture on such a base over said seat.

14. A natural posture seat attachment for squat type toilets comprising a seat member having an enlarged rear portion and a smaller front portion and skirt portions depending from said portions and disposable on a base, said skirt portions being of a height adapted to minimize contact with said seat when the user is in squatting posture on such a base over said seat, and said seat member having positioning lug members on the rear of the rear skirt portion and cooperating positioning lug means on the front of the front skirt portion.

15. In a squat type toilet, a base having a generally elliptical bowl therein having its axis of maximum dimension extending transversely on opposite sides of the user, means forming a urinary opening communicating with said bowl and projecting forwardly from the front side of said bowl, and foot supports on opposite sides of said opening and in front of the side of said bowl from which said urinary opening projects.

JOSEPH G. BRUZENAK.