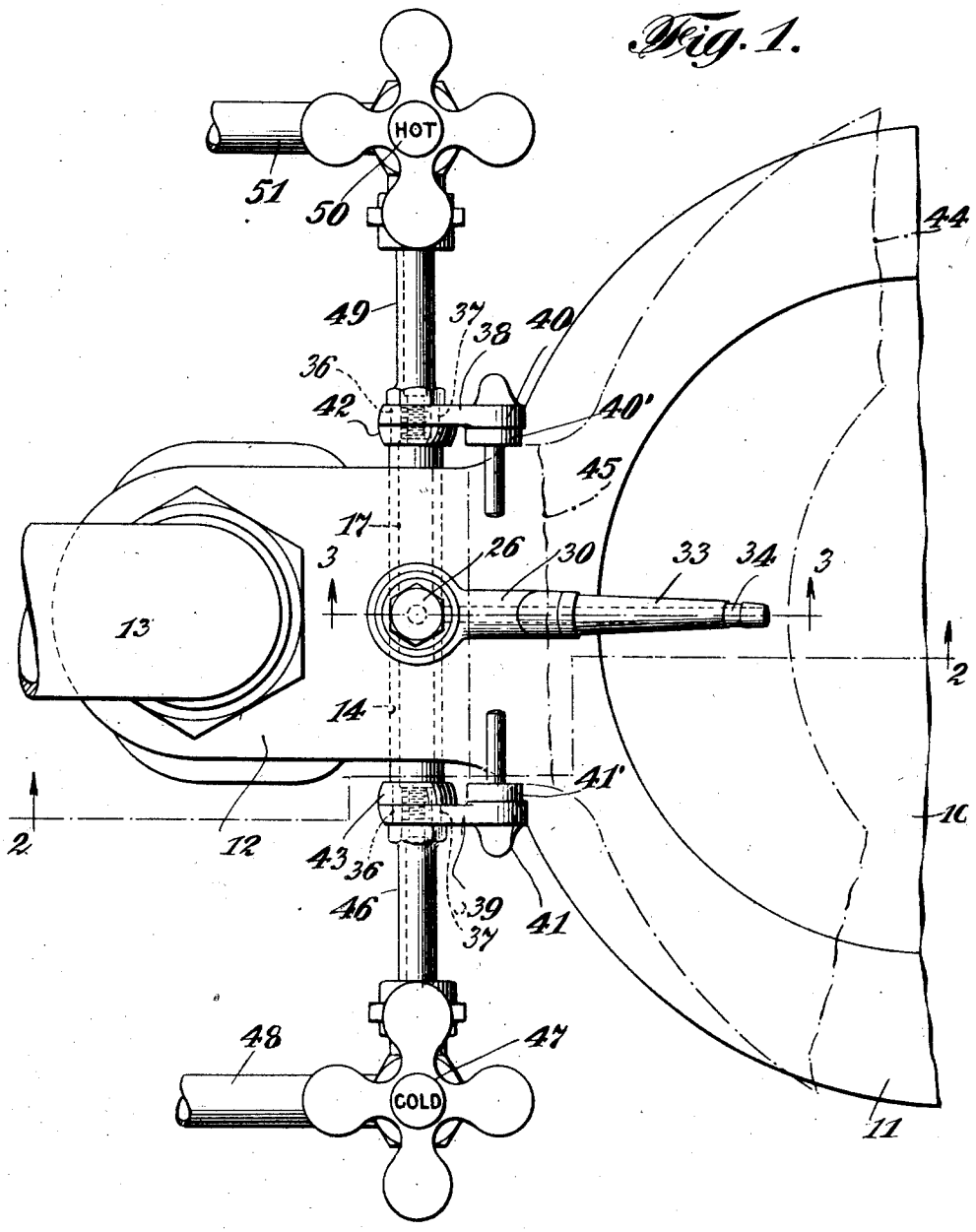
May 1, 1928. 1,668,048

C. C. CAMPUS

WATER CLOSET FITTING

Original Filed July 29. 1926 2 Sheets-Sheet 1

Fig. 1.



INVENTOR

Cesare C. Campus

BY

his ATTORNEYS

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Fig. 2.

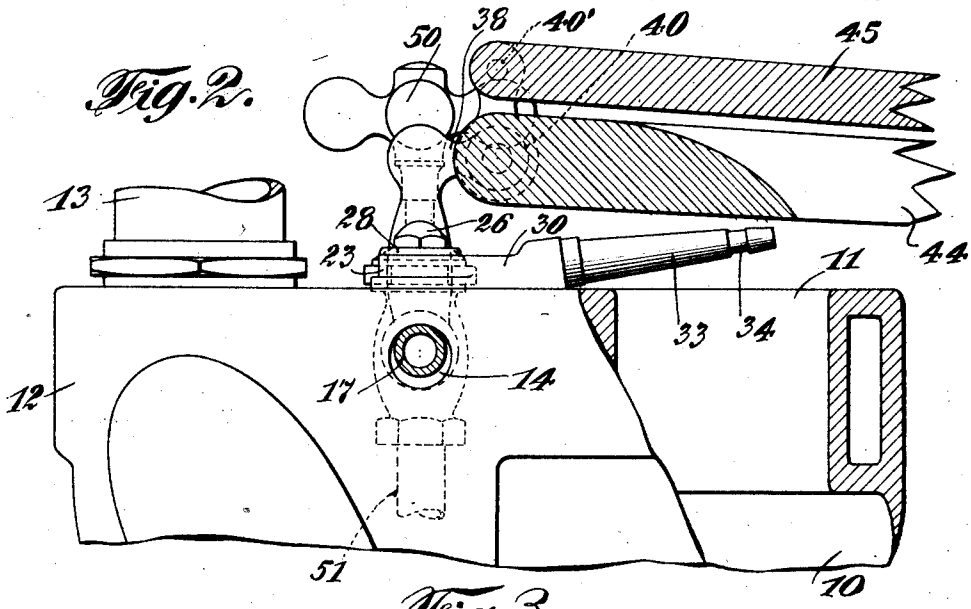


Fig. 3.

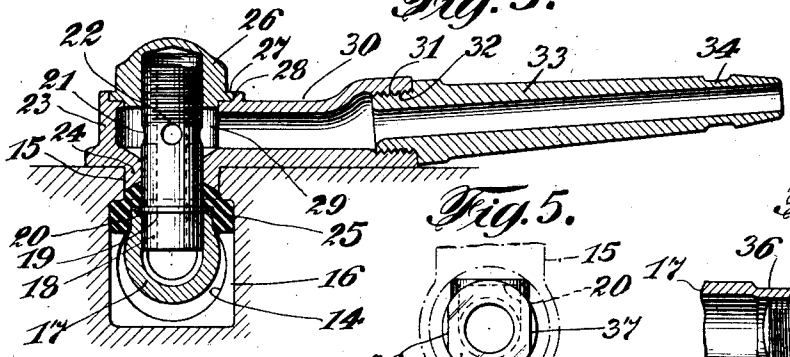


Fig. 5.

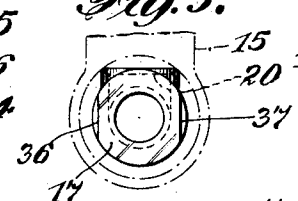


Fig. 4.

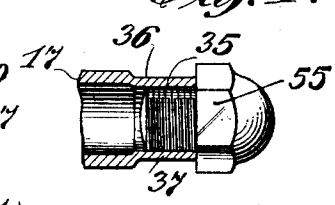


Fig. 7.

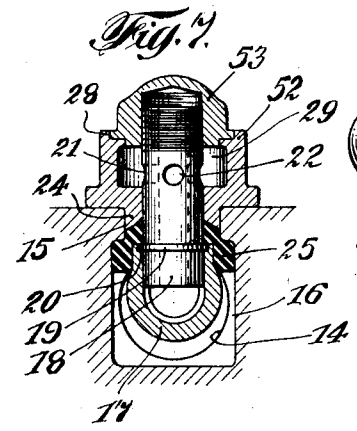
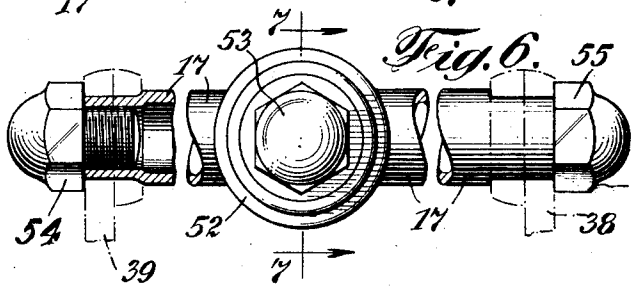


Fig. 6.



INVENTOR

Cesare C. Campus

BY

[signature]

ATTORNEYS

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UNITED STATES PATENT OFFICE.

CESARE C. CAMPUS, OF SANTA MONICA, CALIFORNIA.

WATER-CLOSET FITTING.

Application filed July 29, 1926, Serial No. 125,628. Renewed July 23, 1927.

This invention relates to a water closet fitting. In the use of toilet bowls at the present time it is customary, in accordance with common practice, to provide the bowl at the rear with a transversely extending flange by means of which the usual seat and cover therefor are secured in position relatively to the bowl. A fitting made in accordance with my present invention is adapted to be employed in conjunction with a toilet bowl in which this transversely disposed flange is dispensed with entirely, the bowl preferably at the rear being merely provided with the usual extension for connection with the water supply for flushing the bowl. The improved fitting is so constructed and connected to the bowl that it serves as a means of support for brackets to which the seat and cover are attached, and is also preferably so constructed as to provide a bidet nozzle so placed as to properly direct the path of a stream of clean water to the anus and for other similar purposes.

In carrying out the invention, whether the fitting includes the bidet attachment or not, the device is made to include means co-acting with the adjacent parts of the bowl for securing the same in position, that is to fix the fitting in place so as to prevent both transverse and revoluble movements thereof as will be hereinafter more particularly described.

In the drawing Figure 1 is a plan illustrating the upper rear portion of a water closet bowl showing the improved fitting associated therewith.

Fig. 2 is a sectional elevation taken on line 2—2, Fig. 1;

Fig. 3 is an enlarged transverse section on line 3—3, Fig. 1;

Fig. 4 is a longitudinal section taken at one end of the fitting showing a cap nut applied thereto;

Fig. 5 is an end elevation showing the cap nut removed;

Fig. 6 is a sectional plan illustrating the form the fitting takes without the bidet connection associated therewith; and

Fig. 7 is a transverse section on line 7—7, Fig. 6.

Referring to the drawing and particularly to Figs. 1 to 5 inclusive, a portion of a toilet bowl is indicated at 10. As is customary the upper part of the toilet bowl terminates in a rim 11. At the rear of the bowl the same is provided with an extension 12 for fitting a supply pipe 13 thereto for conveying the water for flushing the bowl thereto. It is to be noted that in this form of bowl the upper rear portion is not provided with the customary transverse flange for the seat and cover support connections inasmuch as in this structure this flange is dispensed with.

In this form of bowl the rear extension in a suitable position is provided with a transverse bore 14 extending completely through from one side to the other thereof. In this structure there is also an auxiliary or upwardly extending bore 15 which is preferably placed centrally and extends from the bore 14 to the upper face of the rear extension 12 of the bowl.

The toilet bowl fitting to which the invention more particularly relates includes a tubular fitting member 17. This passes through the transverse bore 14 and is of sufficient length to extend appreciably beyond the opposite sides of the rear extension. Passing through the auxiliary bore 15 there is a short pipe or connection 18 which functions to connect with and secure the tubular fitting member 17 in position and may function as a discharge fitting. At its lower or inner end this pipe connection 18 is screw threaded and is adapted to be turned down in a tapped opening in the tubular fitting 17 after this tubular fitting is properly placed in the bore 14. Adjacent its lower or inner end the short pipe 18 is provided with a flange or collar 19 adapted to be seated in a recess 20 provided for this purpose in the outer portion of the tapped opening in the tubular fitting. In a suitable position this short pipe fitting 18 is also provided with transversely disposed ports 21 and 22 preferably at right angles to each other. Fitting over the short pipe 18 there is a head member 23. This is preferably flat on its under side so as to be adapted to lie closely in contact with the upper face of the rear extension 12 when the parts of the fitting are connected permanently for use. This head has a tubular downward extension 24 adapted to enter and fit the outer end of the auxiliary bore 15. Fitting over the short pipe 18 there is also a washer or gasket 25. This normally is of sufficient length to be compressed when the parts are in position to completely fill the space intervening between the inner end of the extension 24 and the adjacent portion of the tubular fitting and the wall defining the bore 15 and the adja-

cent portion of the wall defining the recess 16, which in reality is a centrally disposed enlarged portion of the transverse bore 14.

Fitting on the upper or outer end of the short pipe 18 there is a cap nut 26. This cap nut is made with a flange 27 adapted to fit and seat within a recess 28 provided therefor in the upper surface of the head 23.

It will now be readily appreciated that in connecting these parts as hereinbefore described, the turning of the cap nut to position against the head 23 will force the head downwardly to cause the same to closely engage the upper surface of the extension 12 and at the same time will draw the tubular fitting 17 upwardly causing the upper surface thereof to engage the upper part of the wall defining the transverse bore 14 and simultaneously the washer or gasket 25 will be compressed as hereinbefore described so that the parts are readily connected and maintain the tubular fitting in position so that it will not shift longitudinally, that is, move transversely of the extension 12 and to also maintain the tubular fitting in position so that it will not move revolubly. In short, the parts thus secured to one another are adapted when in place to form an adequate support for the brackets to which the toilet seat and cover are pivotally connected as hereinafter described.

As indicated in these figures of the drawing, the head 23 is provided with an extension 30. At the outer end this extension 30 is provided with a tapped socket 31 to receive the screw threaded end 32 of a nozzle 33. As illustrated, this nozzle 33 is set at a slight upward inclination. It will be understood, however, that the inclination at which the nozzle is set forms no part of the invention inasmuch as the nozzle may be made to extend directly outward or its inclination may be varied depending upon circumstances as may be required. Adjacent the other end of the nozzle the same is provided with a circumferentially disposed recess 34 for assisting in maintaining a catheter or other tube which may be employed in connection therewith.

The ends of the tubular fitting 17 are preferably tapped as indicated at 35 and adjacent their extremities these ends of the fitting are provided with flat sides indicated at 36 and 37. The ends of the fitting are similarly constructed, so that the description of one end will serve for a description of both ends. These flat side ends of the tubular fitting are adapted to receive brackets 38 and 39; the lower ends of the brackets being provided with openings adapted to receive the flattened ends of the fitting. The upper ends of these brackets are preferably offset as indicated at 40 and 41, and the lower ends of the brackets as indicated at 42 and 43 are preferably provided with bosses in order to make provision for increased engaging surface between the same and the flat sided ends of the fitting over which the lower ends of these brackets fit.

The seat 44 and the cover 45 are provided with brackets 40′ and 41′ which in the customary manner are connected to the seat and the cover and are fitted with trunnions adapted to be received in the offset upper ends 40 and 41 of the brackets, in order to pivotally connect the cover and its seat to these brackets, whereby the seat and cover are pivotally mounted in their associated relationship to each other and to the bowl.

The bracket 39 may be fixed in place by means of a pipe connection 46 adapted to be turned down in the adjacent tapped end of the tubular fitting and by means of which and a suitable valve 47 mounted thereon, water may be conveyed from any suitable source of supply through a pipe 48 to the tubular fitting and thence through the nozzle for its intended purposes. In a similar manner the support bracket 38 may be fixed in position by means of a pipe 49 turned down into the other end of the tubular fitting. On this pipe connection 49 there is mounted a valve 50 by which, together with a pipe 51, water from a suitable source of supply may be admitted to the fitting from this side thereof and thence through the nozzle for its intended purposes.

As illustrated in the drawing the pipe 48 is connected to a supply of cold water and the pipe 51 to a supply of hot water, it being understood of course that the resultant temperature of the water emitted from the nozzle may be controlled by the adjustment of the valves 47 and 50, depending upon the extent to which these valves are opened to regulate the quantity of water which passes through the same.

In the apparatus as heretofore described, the fitting includes a bidet attachment, and as hereinbefore stated the fitting is adapted to support and connect the closet seat and its cover irrespective of whether the bidet attachment is employed or not.

As will be seen by reference to Figs. 6 and 7, the head member 52 may be so constructed as to eliminate the extension 30, in which case the cap nut 53, which is the equivalent of the cap nut 26, is employed to draw the parts together and to maintain them in their associated relationship.

In this structure, of course, it would not be necessary to provide any water supply, and consequently the port brackets 38 and 39 are secured in position by means of the cap nuts 54 and 55.

It will now be understood that inasmuch as the fitting is secured in position in the rear portion of the bowl and the discharge head member and its nozzle are fixed in place at the upper rear portion of the bowl

that the moving parts of bidet apparatus as heretofore employed are entirely eliminated and that there are no objectionable holes in any part of the wall of the bowl. Furthermore, it will be understood that the nozzle extending from the discharge head member is so placed as to lie immediately beneath the rear portion of the seat when the seat is in position with the orifice of the nozzle adjacent the inner edge of the seat, and that by regulating the pressure the necessary flow of water may be obtained to cleanse the body which coacts with the seat to prevent the water from splashing from or leaving the bowl, while for other uses, the water pressure may be increased to a sufficient extent for any purposes for which the apparatus may be employed.

I claim as my invention:—

1. In an apparatus of the class described, a bowl, a tubular supply fitting extending transversely through a bore in the rear portion of the bowl, and a discharge member passing into an auxiliary bore in the bowl for connection with the said tubular supply fitting to secure the same in place, the said discharge member having a head which is adapted to lie immediately beneath the rear portion of the closet seat and to direct a stream of water from the upper rear portion of the closet bowl toward the front thereof.

2. In an apparatus of the class described, a tubular supply fitting extending transversely through a bore in the rear portion of the bowl, a discharge member passing into an auxiliary bore in the bowl for connection with the said tubular supply fitting to secure the same in place, and a stationary nozzle extending from the said discharge member, the said nozzle being adapted to lie immediately beneath the upper rear portion of the closet seat and to direct a stream of water from the upper rear portion of the bowl toward the front thereof.

3. In an apparatus of the class described, a bowl having an extension at the rear thereof with a transverse bore extending from side to side of the extension and also an auxiliary bore extending from the top of the bowl extension and communicating with the said transverse bore, a tubular fitting passing through the said transverse bore, and means extending into the auxiliary bore and connecting with the said tubular fitting for securing the fitting in position, the said means including a transverse head adapted to lie on the top of the bowl extension and adapted to direct a stream of water from the rear toward the front of the bowl.

4. In an apparatus of the class described, a bowl having an extension at the rear thereof with a transverse bore extending from side to side of the extension and also an auxiliary bore extending from the top of the bowl extension and communicating with the said transverse bore, a tubular fitting extending through and beyond the said transverse bore, a short pipe passing through the said auxiliary bore and being secured in a tapped opening in the said tubular fitting, and means associated with the said short pipe for securing the same and the tubular fitting in position, the said means including a discharge head adapted to lie on the top of the bowl extension and to direct a stream of water from the rear toward the front of the bowl.

5. In an apparatus of the class described, a bowl having an extension at the rear thereof with a transverse bore extending from side to side of the extension and also an auxiliary bore extending from the top of the bowl extension and communicating with the said transverse bore, a tubular fitting extending through and beyond the said transverse bore and having a tapped opening therein, a short pipe extending through the auxiliary bore and adapted to be turned down in the tapped opening in the tubular fitting, a discharge head having an extension adapted to fit within the outer portion of the said auxiliary bore, a gasket surrounding the short pipe intermediate of the discharge head and the connection between the short pipe and the tubular fitting, and means for securing the discharge head in position, the said discharge head being adapted to lie against the top of the bowl extension and to direct a stream of water from the rear toward the front of the bowl.

6. In an apparatus of the class described, a bowl having an extension at the rear thereof with a transverse bore extending from side to side of the extension and also an auxiliary bore extending from the top of the bowl extension and communicating with the said transverse bore, a tubular fitting extending through the said transverse bore and having a tapped opening therein, a short pipe passing through the auxiliary bore and adapted to be turned down into the tapped opening in the tubular fitting, a discharge head fitting over the short pipe and having an extension adapted to fit within the outer portion of the auxiliary bore, a gasket fitting the short pipe and intervening between the inner end of the extension of the said discharge head and the portion of the tubular fitting adjacent the said tapped opening therein, a cap nut fitting the outer end of the said short pipe and adapted to be turned down against the said discharge head to fix the same and the parts associated therewith in position, the said discharge head having an extension by which a stream of water may be directed from the back toward the front of the bowl.

7. In an apparatus of the class described, a bowl having an extension at the rear thereof with a transverse bore extending from

side to side of the extension, and also an auxiliary bore extending from the top of the bowl extension and communicating with the said transverse bore, a tubular fitting extending through the said transverse bore and having a tapped opening therein, a short pipe passing through the auxiliary bore and adapted to be turned down into the tapped opening in the tubular fitting, a discharge head fitting over the short pipe and having an extension adapted to fit within the outer portion of the auxiliary bore, a gasket fitting the short pipe and intervening between the inner end of the extension of the said discharge head and the portion of the tubular fitting adjacent the said tapped opening therein, the discharge head having a lateral extension, and a nozzle movably connected to the said lateral extension of the discharge head by which a stream of water may be directed from the rear toward the front of the bowl.

8. In an apparatus of the class described, a bowl having an extension at the rear thereof with a transverse bore extending from side to side of the extension and also an auxiliary bore extending from the top of the bowl extension and communicating with the said transverse bore, a tubular fitting passing through the said transverse bore, means extending into the auxiliary bore and connecting with the said tubular fitting for securing the fitting in position, the said means including a transverse head adapted to lie on the top of the bowl extension and to direct a stream of water from the rear toward the front of the bowl, and means for supplying water through the said tubular fitting to the said discharge head.

9. In an apparatus of the class described, a bowl having an extension at the rear thereof with a transverse bore extending from side to side of the extension and also an auxiliary bore extending from the top of the bowl extension and communicating with the said transverse bore, a tubular fitting extending through the said transverse bore and having a tapped opening therein, a short pipe passing through the auxiliary bore and adapted to be turned down into the tapped opening in the tubular fitting, a discharge head fitting over the short pipe and having an extension adapted to fit within the outer portion of the auxiliary bore, a gasket fitting the short pipe and intervening between the inner end of the extension of the said discharge head and the portion of the tubular fitting adjacent the said tapped opening therein, a cap nut fitting the outer end of the said short pipe and adapted to be turned down against the said discharge head to fix the same and the parts associated therewith in position, the said discharge head having an extension by which a stream of water may be directed from the back toward the front of the bowl, a bracket fitted on each end of the said tubular fitting and adapted to support a closet seat, and means for securing the said brackets in place.

10. In an apparatus of the class described, a bowl having an extension at the rear thereof with a transverse bore extending from side to side of the extension and also an auxiliary bore extending from the top of the bowl extension and communicating with the said transverse bore, a tubular fitting extending through the said transverse bore and having a tapped opening therein, a short pipe passing through the auxiliary bore and adapted to be turned down into the tapped opening in the tubular fitting, a discharge head fitting over the short pipe and having an extension adapted to fit within the outer portion of the auxiliary bore, a gasket fitting the short pipe and intervening between the inner end of the extension of the said discharge head and the portion of the tubular fitting adjacent the said tapped opening therein, a cap nut fitting the outer end of the said short pipe and adapted to be turned down against the said discharge head to fix the same and the parts associated therewith in position, the said discharge head having an extension by which a stream of water may be directed from the back toward the front of the bowl, a bracket on each end of the said tubular fitting to support a closet seat, pipe connections secured in the ends of the said tubular fitting for maintaining the brackets in place, and means for supplying water through the said pipe connections to the said tubular fitting.

11. In an apparatus of the class described, a bowl, a fitting extending through a rear extension of the bowl, means co-acting with the bowl for securing the fitting in position therein, and means carried by the fitting for supporting a closet seat connected therewith.

12. In an apparatus of the class described, a bowl having an extension at the rear thereof with a transverse bore extending from side to side through the said extension and an auxiliary bore extending from the top of the said extension and communicating with the said transverse bore, a fitting extending through the transverse bore, means extending through the auxiliary bore and connecting with the fitting for securing the same in position in the extension of the bowl, and means carried by the ends of the fitting for pivotally supporting a closet seat and a cover therefor.

13. In an apparatus of the class described, a bowl having an extension at the rear thereof with a transverse bore extending from side to side through the said extension and an auxiliary bore extending from the top of the said extension and communicating with the said transverse bore, a fitting extending

through the transverse bore, means extending through the auxiliary bore and connecting with the fitting for securing the same in position in the extension of the bowl, support brackets mounted on the ends of the said fitting and adapted to be pivotally connected to a seat and a cover therefor, and means for securing the said support brackets in place on the ends of the said fitting.

14. In an apparatus of the class described, a bowl having an extension at the rear thereof with a transverse bore extending from side to side through the said extension and an auxiliary bore extending from the top of the said extension and communicating with the said transverse bore, a fitting extending through the transverse bore, means extending through the auxiliary bore and connecting with the fitting for securing the same in position in the extension of the bowl, the ends of the fitting extending beyond the sides of the bowl extension and being provided with flattened faces, support brackets fitting over the flattened faces at the ends of the fitting for pivotally supporting a seat and a cover therefor, and cap nuts secured to the ends of the fitting for maintaining the support brackets in place thereon.

15. In an apparatus of the class described, a bowl, a seat therefor, a tubular fitting extending through a rear portion of the bowl, means for securing the tubular fitting in position including a discharge head connected thereto, and a nozzle associated with the discharge head and adapted to lie in a fixed position immediately beneath the rear of the seat whereby a stream of water may be directed from the upper rear portion of the bowl toward the front thereof.

16. In an apparatus of the class described, a bowl having an extension at the rear thereof with a transverse bore and also an auxiliary bore extending from the top of the bowl extension and communicating with the said transverse bore, a seat for the bowl, a tubular fitting extending through the said transverse bore, means including a discharge head extending into the auxiliary bore for securing the tubular fitting in position in the transverse bore, the said discharge head being adapted to lie on top of the bowl extension, and a nozzle fixed to the said discharge head and adapted to lie directly beneath the rear portion of the seat with the orifice in the nozzle adjacent the inner edge of the seat whereby a stream of water may be directed from the upper rear portion of the bowl toward the front thereof.

17. In an apparatus of the class described, a bowl having an extension at the rear thereof with a transverse bore extending through the same and an auxiliary bore passing through a wall of the bowl and communicating with the aforesaid transverse bore, a tubular fitting extending through the transverse bore, means extending through the auxiliary bore and connecting with the tubular fitting for securing the same in position, and means carried by the ends of the tubular fitting for pivotally supporting a closet seat and a cover therefor.

18. In an apparatus of the class described, a bowl having an extension at the rear thereof with a transverse bore extending therethrough and an auxiliary bore extending through a wall of the bowl and making communication with the said transverse bore, a tubular fitting extending through the transverse bore, means extending through the auxiliary bore and connecting with the tubular fitting for securing the same in position in the transverse bore, support brackets mounted on the ends of the tubular fitting and adapted to be pivotally connected to a seat and a cover therefor, and means for securing the said support brackets in place on the said tubular fitting.

19. In an apparatus of the class described, a bowl having an extension at the rear thereof with a transverse bore extending through the same and an auxiliary bore passing through a wall of the bowl and communicating with the aforesaid transverse bore, a tubular fitting extending through the transverse bore, means extending through the auxiliary bore and connecting with the tubular fitting for securing the same in position, a discharge nozzle connected to the aforesaid means and adapted to lie immediately beneath the lower rear portion of the closet seat and to direct a stream of water forwardly from the rear toward the front of the closet bowl, and means carried by the ends of the tubular fitting for pivotally supporting a closet seat and a cover therefor.

20. In an apparatus of the class described, a bowl having an extension at the rear thereof with a transverse bore extending therethrough and an auxiliary bore extending through a wall of the bowl and making communication with the said transverse bore, a tubular fitting extending through the transverse bore, means extending through the auxiliary bore and connecting with the tubular fitting for securing the same in position in the transverse bore, a discharge nozzle connected to the aforesaid means and adapted to lie immediately beneath the lower rear portion of the closet seat and to direct a stream of water forwardly from the rear toward the front of the closet bowl, support brackets mounted on the ends of the tubular fitting and adapted to be pivotally connected to a seat and a cover therefor, and means for securing the said support brackets in place on the said tubular fitting.

Signed by me this 26th day of July, 1926.

CESARE C. CAMPUS.