April 27, 1926. 1,582,845

W. P. McARTHUR

ADJUSTABLE DRAINAGE FITTING FOR HANGING BATTERY WALL TOILETS

Filed March 27, 1923 2 Sheets-Sheet 1

Fig. 1.

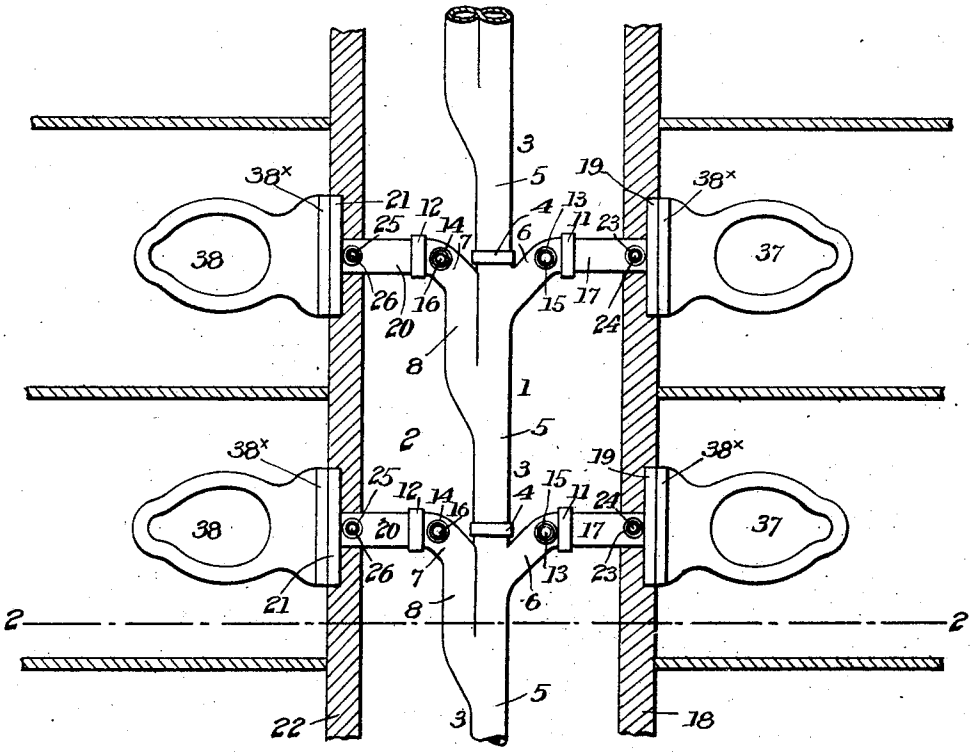



Fig. 8.

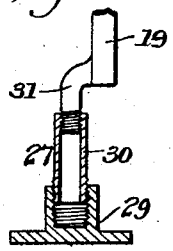
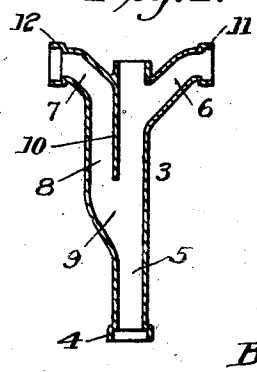



Fig. 4.




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Fig. 2.

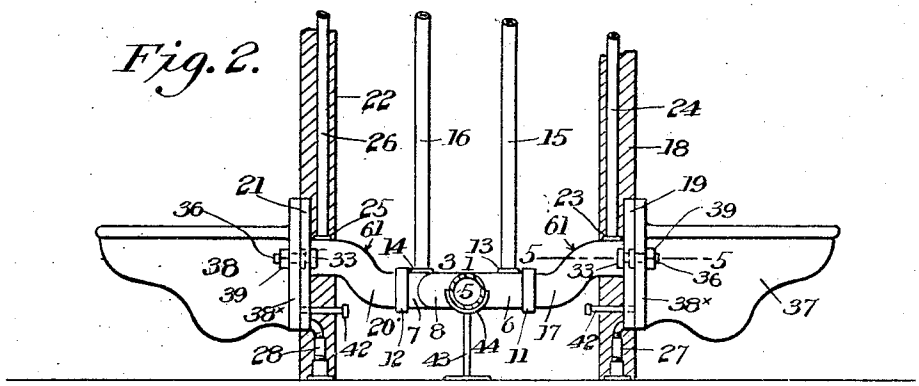



Fig. 3.

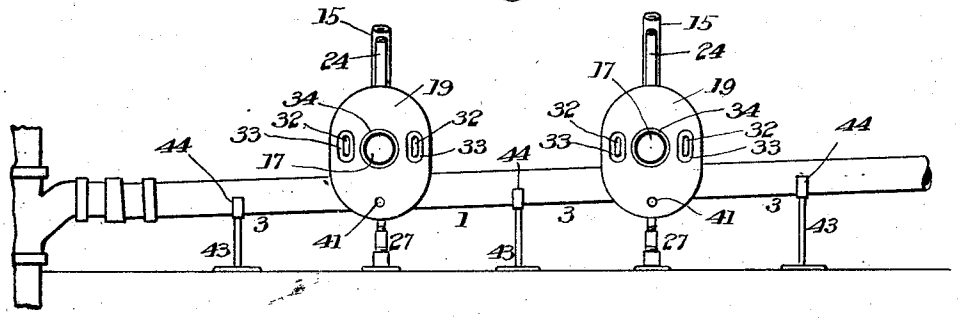



Fig. 7.

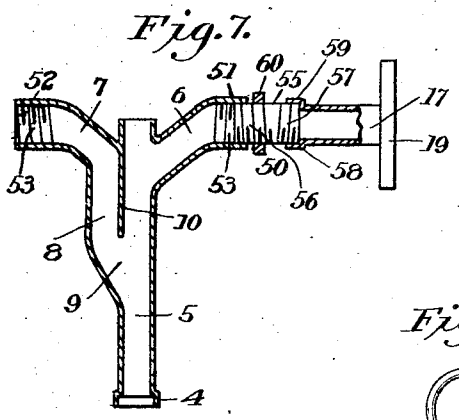



Fig. 6.

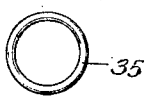
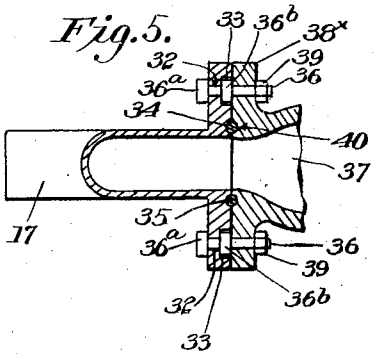



Fig. 5.




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# UNITED STATES PATENT OFFICE.

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## ADJUSTABLE DRAINAGE FITTING FOR HANGING BATTERY WALL TOILETS.

Application filed March 27, 1923. Serial No. 628,126.

*To all whom it may concern:*

Be it known that I, WILLIAM P. McARTHUR, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Adjustable Drainage Fittings for Hanging Battery Wall Toilets, of which the following is a specification.

My invention relates to drainage fittings, and more particularly to an adjustable drainage fitting for hanging battery wall toilets, so constructed that the waste line may be concealed back of a partition wall or within a utility space above the floor, making it accessible for repairs, allowing plumbing to be installed which will require no furring on the ceiling below.

The main object of my invention is to provide a drainage fitting of the character stated which will be superior to other like fittings in point of simplicity, sanitation, facility of installation and repairs, efficiency and serviceability.

Other fittings of this type are constructed with large areas which collect filth and do not flush clean.

My fitting has no large areas to collect filth, but is constructed throughout with a four inch bore which flushes clean each time with each toilet. Moreover my waste line is constructed with partitions which prevents each toilet on one side of the waste line from backing into the opposite toilet on the other side of the waste line.

Other objects and advantages will appear hereinafter, and while I show herewith and will describe a preferred form of construction, I desire to be understood that I do not limit my invention to such preferred form, but that various changes and adaptations may be made therein without departing from the spirit of my invention as hereinafter claimed.

Referring to the annexed drawings which form a part of this specification:

Fig. 1 is a plan view of a portion of my fitting.

Fig. 2 is a transverse vertical section of my fitting taken on the line 2—2 of Fig. 1.

Fig. 3 is a side elevation of my fitting as shown in Fig. 1.

Fig. 4 is a horizontal longitudinal section of one of the waste line sections.

Fig. 5 is a horizontal section of one of the toilet carriers taken on line 5—5 of Fig. 2.

Fig. 6 is a plan view of one of the gaskets interposed between a toilet carrier and toilet.

Fig. 7 is a horizontal section of a modified form of one of the waste line sections.

Fig. 8 is a vertical section of one of the carrier supports.

In the drawings 1 indicates the waste line of my fitting which line may be located at a slight inclination behind a partition or within a utility chamber 2. Said waste line is composed of a series of sections 3, one end of each section being formed with a hub 4 to receive the opposite end of an adjoining section, which end is calked within said hub. Each section 3 is formed with a main duct 5 and with two inlets 6 and 7, and a duct 8 parallel to duct 5. The inlet 6 extends at an angle to and communicates directly with one end of the duct 5 at one side of said duct, while the inlet 7 extends at an angle to and communicates at the other side of main duct 5 with the end of duct 8 corresponding to the end of the duct 5 with which the inlet 6 communicates, the duct 8 being formed on the section 3 parallel to duct 5 at the opposite side of said duct 5 from that to which the inlet 6 connects.

The duct 8 communicates with the main duct 5 at a point 9 in advance of the point of communication of inlet 6 with said main duct, there being a longitudinal partition 10 between the ducts 5 and 8 extending from the inlet end of the section 3 to the point of communication 9.

The outer ends of inlets 6 and 7 are formed with hubs 11 and 12 respectively. In the upper walls of the inlets 6 and 7 are formed vent openings 13 and 14 respectively in which are connected the lower ends of vent pipes 15 and 16 respectively.

In the inlet hub 11 of each section 3 is calked one end of a carrier waste pipe 17, which is bent upwardly from the level of the inlet 6 to the level of a toilet outlet and extends through one wall 18 of utility chamber 2, there being a toilet carrier plate 19 formed on the outer end of said pipe 17 which is fitted in the outer side of the wall 18 with its outer face flush with the outer surface of said wall.

A carrier waste pipe 20 similar to pipe

17 is calked at one end in the hub 12 of each section 3 and a toilet carrier plate 21 is formed on the other end of said pipe 20, which pipe extends through the wall 22 of utility chamber 2 opposite the wall 18, and which carrier plate 21 is countersunk in the outer surface of said wall 22 flush with said outer surface. The upper wall of the pipe 17 is provided with a vent opening 23 adjacent the rear of carrier plate 19 and within the chamber wall 18, in which opening is secured the lower end of a vent pipe 24 which extends upwardly through said chamber wall to the atmosphere.

The upper wall of the pipe 20 is provided with a vent opening 25 adjacent the rear of carrier plate 21 and within the chamber wall 22, in which opening is secured the lower end of a vent pipe 26, which extends upwardly through said chamber wall to the atmosphere. The carrier plates 19 and 21 are supported by supports 27 and 28 respectively which are embedded in the chamber walls 18 and 22. Each of the supports 27 and 28 comprises an internally threaded base member 29, and a sleeve 30, which screws at its lower end into said base member and is internally threaded at its upper end, which ends screws onto a lug 31 depending from the rear of a carrier plate 19 or 21. Each of the carrier plates 19 and 21 is provided with two vertical slots 32—32 at the sides respectively of the waste pipes of said carrier plates, which plates are provided in their outer surfaces with recesses 33—33 about said slots respectively.

Each carrier plate 19 and 21 is provided in its outer surface about its waste pipe with an annular gasket groove 34 to receive a gasket 35. Bolts 36—36 extend respectively through the slots 32—32 in the carrier plates 19 and 21, the heads $36^a$—$36^a$ of which bolts engage the rear sides of said plates, and nuts $36^B$—$36^b$ screw on said bolts within the recesses 33—33 against said carrier plates, the outer surfaces of said nuts resting flush with or within the outer surfaces of said carrier plates.

Toilets 37 and 38 are bolted to the outer faces of the carrier plates 19 and 21 respectively by the bolts 36—36 which extend through the base flanges 38* of said toilets, there being nuts 39—39 which screw on the outer ends of said bolts against said flanges, and said toilets are provided in their rear surfaces about their outlets with annular grooves 40 in which is clamped the gasket 35 resting in the carrier grooves 34 whereby leakage between the carrier plates and the toilet is prevented.

Each of the carrier plates 19 and 21 is provided with a threaded opening 41 in the lower part thereof to receive a set screw 42 which extends from the utility chamber 2 through a wall 18 or 22 of said chamber and engages the base of a toilet 37 or 38 for adjusting the bases of said toilets inwardly or outwardly with relation to their carrier plates whereby said toilets are properly hung on said plates.

The waste line 1 may be supported by supports 43 which rest upon the floor of the utility chamber 2 and are formed with saddles 44 on their upper ends in which rest said waste line. The partitions 10 prevent the toilets on one side of the fitting from backing into the opposite toilets on the other side of the fitting.

In the modified form of my fitting shown in Fig. 7, I provide a running thread coupling 50 for coupling the inner end of the carrier waste pipes 17 or 20 to the inlets 6 or 7 of the sections 3. The hubs 51 and 52 of said inlets are elongated and internally threaded with right hand threads 53. One end of a coupling sleeve 55 provided with a right hand running thread 56 screws into the threaded hub 51 or 52 and the other end of said sleeve is provided with a left hand thread 57 which engages a like internal thread 58 in a hub 59 on the inner end of a carrier waste pipe 17 or 20. A nut 60 is screwed on the thread 56. In coupling a carrier waste pipe to an inlet of a waste line section 3, the sleeve 55 with its thread 56 is first screwed or run all the way into the hub of a waste line inlet and then screwed or run out of said hub in a reverse direction so that the other end of the sleeve with its thread 57 is screwed into the hub 59 of a carrier waste pipe. The nut 60 is then screwed against the end of the waste line hub 51 or 52.

The bends 61 of the carrier waste pipes 17 or 20 are of different degrees so that said pipes may be connected to points of different elevations of the inclined waste line 1 while maintaining the carrier plates 19 and 21 at a uniform elevation for the uniform elevation of the toilets 37 and 38.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. A drainage fitting comprising a section of a drain pipe provided with two inlets at one end thereof, said inlets being arranged on opposite sides of said pipe section, at an oblique angle thereto, and a partition between said inlets, said partition extending longitudinally from the inlet end to approximately the middle point of said pipe section, whereby drainage from one toilet is prevented from backing into the other and opposite toilet.

2. A drainage fitting comprising a section of drain pipe provided with two oppositely arranged inlets near one end thereof, at oblique angles thereto, the communicating duct of one inlet being offset substantially, in a longitudinal direction of said pipe sec-

tion, from the communicating duct of the other inlet, whereby drainage from one toilet is prevented from backing into the other and opposite toilet.

3. A drainage fitting comprising a section of drain pipe provided with an elongated bulge on one side thereof, two oppositely arranged inlets near one end of said pipe section at an oblique angle thereto, one of said inlets communicating with said elongated bulge, and a partition between said inlets extending longutidinally of said pipe section so as to form parallel ducts in said pipe section and in the elongated bulge thereof, said partition extending beyond the communicating duct of one of said inlets and terminating at the communicating duct of the other of said inlets, so that said communicating ducts are offset substantially from each other in a longitudinal direction of said pipe section, whereby uniformly sized ducts are provided for both inlets and drainage from one of two toilets connected thereto is prevented from backing into the other and opposite toilet.

WILLIAM P. McARTHUR.