

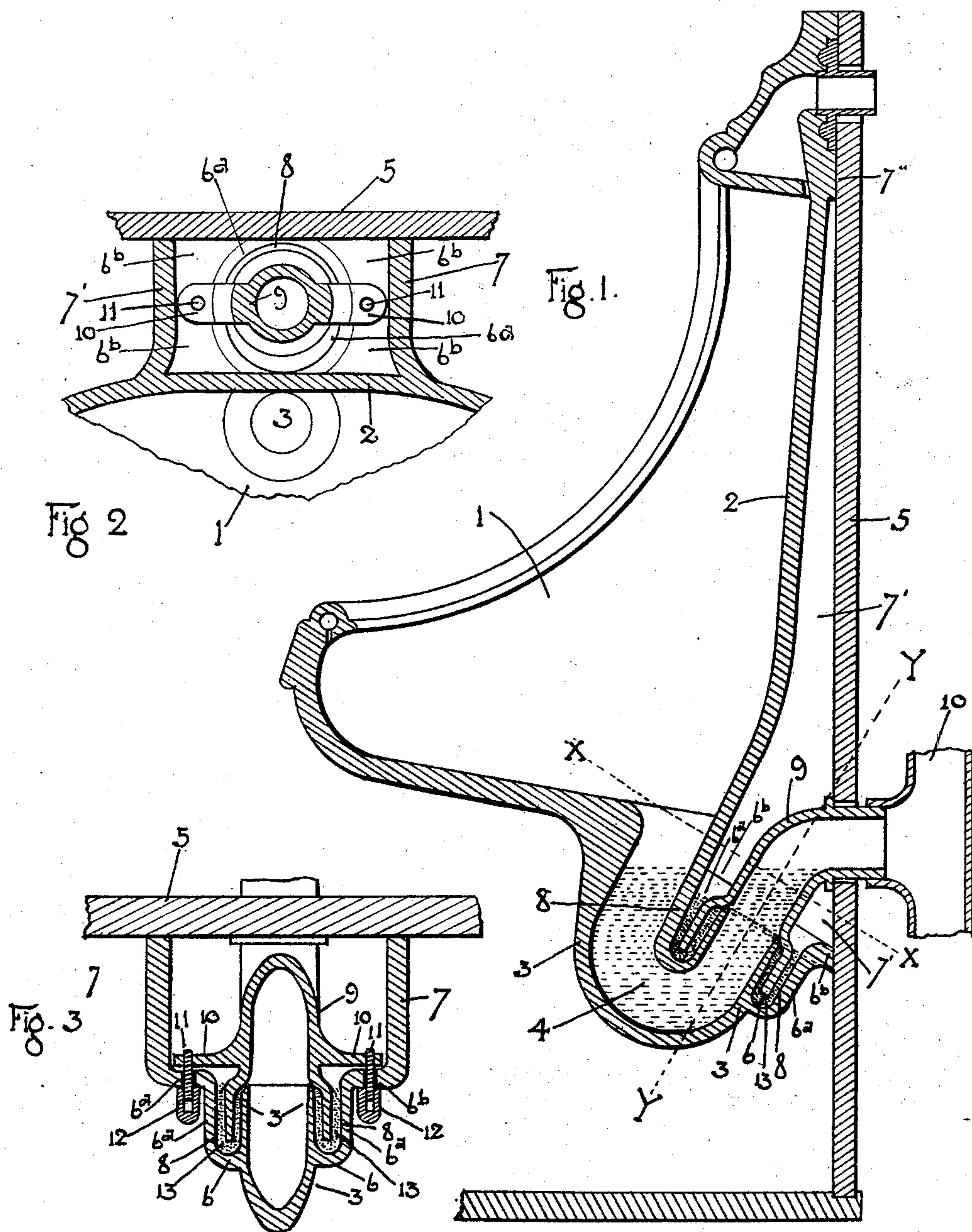
No. 654,601.

Patented July 31, 1900.

W. BUNTING, JR.
URINAL.

(Application filed Jan. 24, 1900.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

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URINAL.

SPECIFICATION forming part of Letters Patent No. 654,601, dated July 31, 1900.

Application filed January 24, 1900. Serial No. 2,803. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM BUNTING, Jr., a citizen of the United States, and a resident of Brookline, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Urinals, of which the following is a specification.

This invention relates to an improved means for connecting a urinal or water-closet to its discharge-pipe, and more particularly is designed as an improvement on the construction disclosed in the patent to Browning, dated January 22, 1895, No. 532,945. The device shown in this patent, though possessing some advantages which are of importance, has several objectionable features which have practically precluded its use, some of which are as follows: Owing to the irregularities caused in molding it is impossible to fit the back side of the quadrant-shaped elbow closely against the wall of the space which is formed therefor in the back side of the urinal, so that there is a space between the elbow and urinal back which is open and may fill up with impurities of various kinds and render the fixture unsanitary. Although a packing of some sort is supposed to be placed between the bottom or intake end of the elbow and the horizontal shelf portion of the urinal, yet in practice it is impossible to pack this joint in this way, for if cement, putty, or any other suitable packing which is capable of use in this connection were placed on the horizontal portion of the bowl before the parts were connected all of this packing would be scraped off by the bottom of the elbow as the bowl is pushed in place. In order to make a properly-packed joint in the groove, a liberal quantity of the soft packing must be placed therein, and a portion thereof is likely to be squeezed out and run down on the slab to which the urinal is secured, causing the slab to become discolored. If any leak should occur in this joint, it would drain the trap down to the end of the quadrant-shaped pipe, so that the sewer-gas could pass from the soil-pipe out through the leak-hole. These and other defects are corrected by my invention, which consists, in a general way, of a urinal which is provided with an inclined upwardly-

projecting discharge-passage, in the end of which an annular cup is formed between the inner and outer walls. In connection with this construction I provide a correspondingly-inclined metal wall-pipe, which is provided with an end of such size as to permit its ready introduction into the annular cup, together with means for securing the pipe to the urinal, a suitable packing being placed in said cup before the pipe is placed therein, so that a perfectly-tight joint is secured.

For a more complete understanding of my invention attention is called to the accompanying drawings, in which—

Figure 1 is a central cross-section showing all parts in position. Figs. 2 and 3 are cross-sections taken on the lines X X and Y Y, respectively, of Fig. 1.

The main body of the urinal 1 is provided with a back wall 2, which is inclined slightly from the top downwardly and merges into the back side of the discharge-pipe 3. This discharge-passage 3 is bent so as to form a trap 4, and said passage is turned upwardly at a suitable angle toward the slab or wall 5, to which the urinal is connected. A laterally-projecting annular flange 6 extends from a point a short distance below the end of the upwardly-extending passage 3. Said flange is provided with an annular upwardly-extending portion 6^a and a laterally-extending portion 6^b, which terminates at each side in the ribs 7 7', at the rear against the slab 5, and at the front in the back side of the rear wall 2. An annular cup 8 is thus formed between the upwardly-projecting end of said passage 3 and the flange 6 6^a. The ribs 7 7' extend from the back side of wall 2 to the slab 5, so that they completely inclose the discharge-pipe connections with the urinal on both sides and extend upwardly to the flat surface 7'' at the top of the urinal. These ribs taper in width as they approach the top, so that when their edges are placed flat against the slab they will hold the urinal at the proper inclination.

The parts of the urinal above referred to are all formed in one solid piece of earthenware.

A metal wall-pipe 9, having a bell-shaped

end which is adapted to fit loosely into the annular cup 8, passes through the slab and is connected at its opposite end to the waste-pipe 10 in the usual way. The pipe 9 passes
 5 through the slab horizontally and has a bend adjacent thereto, and the intake end thereof is inclined at the same angle as the discharge end of the passage 3. On each side of pipe 9 integral lugs 10 are provided, which project outwardly over flange 6^b. Bolts 11 are
 10 secured in said integral lugs by screw-threads or any other convenient means, so that they will not turn therein, and extend downwardly parallel to the intake end of pipe 9, through
 15 apertures which are provided in the flange 6^b. The lower ends of said bolts are screw-threaded, and nuts 12 are threaded thereon, so that said pipe and the urinal may be secured together.

20 In placing the urinal in position the wall-pipe is screwed into the end of the soil-pipe, and the annular cup is filled nearly full of a suitable packing 13. The bell-shaped end of the wall-pipe is then introduced into the
 25 annular cup and the whole urinal pushed upwardly and inwardly into its proper position. The bolts 11 pass through the holes in the flange 6^b while the urinal is being pushed in place, after which the nuts 12 are screwed
 30 onto the ends of the bolts, so that the ribs 7 will be held firmly in place against the slab.

The particular form of connection with the flushing-pipe is not essential, the form shown being similar to that in the Browning patent.

35 Various advantages possessed by my structure are as follows: There is no opportunity for any matter to collect at any point, as no recess would be caused by irregularities in molding. A perfectly-tight joint is formed
 40 between the bowl and wall-pipe, and even if there should be any leakage at this joint the soil-pipe would be sealed by the trap formed by the end of the wall-pipe dipping into the cup, so that there is no possible way in which
 45 sewer-gas could escape to the room.

This construction is applicable to a water-closet in which it is wished to provide a discharge through the wall instead of the floor. This form of connection is finished in appearance, as none of the connections for the lower
 50 portion of the urinal or the discharge-pipe will be visible from the front.

Having described my invention, what I claim as new, and desire to secure by Letters
 55 Patent of the United States, is as follows:

1. A bowl having a discharge-pipe which is bent to form a trap therein, said trap being inclined rearwardly and extending upwardly beyond the bottom of the trap, a flange which
 60 extends outwardly from a point below the end of said discharge-pipe, and then upwardly, forming an annular cup around the end portion of said discharge-pipe, a flange which extends laterally from said upwardly-extending

flange, all of said parts being formed integral, 65
 a wall-pipe having its lower end arranged in said annular cup and its opposite end connected to the soil-pipe, a suitable packing in said cup, lugs extending from said wall-pipe, bolts connected thereto which pass through 70
 said laterally-extending flange and nuts on the lower end of said bolts which engage the under side of said lateral flange and clamp said wall-pipe to the bowl.

2. A bowl having a discharge-pipe which is 75
 bent to form a trap therein, said pipe being inclined rearwardly and extending upwardly from the bottom of the trap, an annular cup formed around the end portion of said pipe, a laterally-extending flange formed integrally 80
 with said pipe, a wall-pipe which has its end located in said cup, bolts carried by said wall-pipe which pass through said laterally-extending flange, and nuts which engage the under side of said flange and secure the bowl to the 85
 wall-pipe.

3. A bowl having a discharge-pipe which is bent so as to form a trap, the discharge end of said pipe being inclined rearwardly and extending upwardly from the bottom of the trap, 90
 an annular cup formed around said discharge end of said pipe, a laterally-extending flange formed integrally with said pipe, ribs which project from the back of said bowl on each side of said pipe and are adapted to rest 95
 against the wall, said laterally-extending flange extending to the back of the bowl, to the wall, and to the said ribs on each side, an inclined wall-pipe which has its inner end located in said cup, a suitable packing in said 100
 cup, bolts which are connected to said wall-pipe and pass through said laterally-extending flange, and nuts which engage the lower end of said bolts.

4. A urinal having a discharge-pipe which 105
 extends upwardly from the bottom and is inclined rearwardly from the back thereof, two side walls which extend upwardly and rearwardly from the back of the urinal to the slab and are arranged on each side of said pipe, 110
 an inclined flange which extends laterally from said discharge-pipe to said side walls, to the slab, and to the urinal-back, said pipe, walls, and flange being all formed integral with the bowl, an inclined wall-pipe which is 115
 adapted to make a water and gas tight communication with the end of said discharge-pipe, bolts which are connected to said wall-pipe and pass through said flange, and nuts which are adapted to engage said bolts and 120
 the under side of said flange and clamp the bowl to the wall-pipe.

5. A urinal having a discharge-pipe which extends upwardly from the bottom and is inclined rearwardly from the back thereof, two 125
 side walls which extend upwardly and rearwardly from the back of the urinal to the slab, a flange which extends laterally from said dis-

charge-pipe to said walls, to the slab, and to
the urinal-back, said pipe, side walls, and
flange being all formed integral with the bowl,
an inclined wall-pipe which is adapted to make
5 a water and gas tight connection with the end
of said discharge-pipe, and means for connect-
ing said wall-pipe to said discharge-pipe, said
side walls and flange being arranged so as to

completely inclose said wall-pipe, and being
formed integrally with the bowl.

In testimony whereof I have affixed my sig-
nature in presence of two witnesses.

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Witnesses:

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