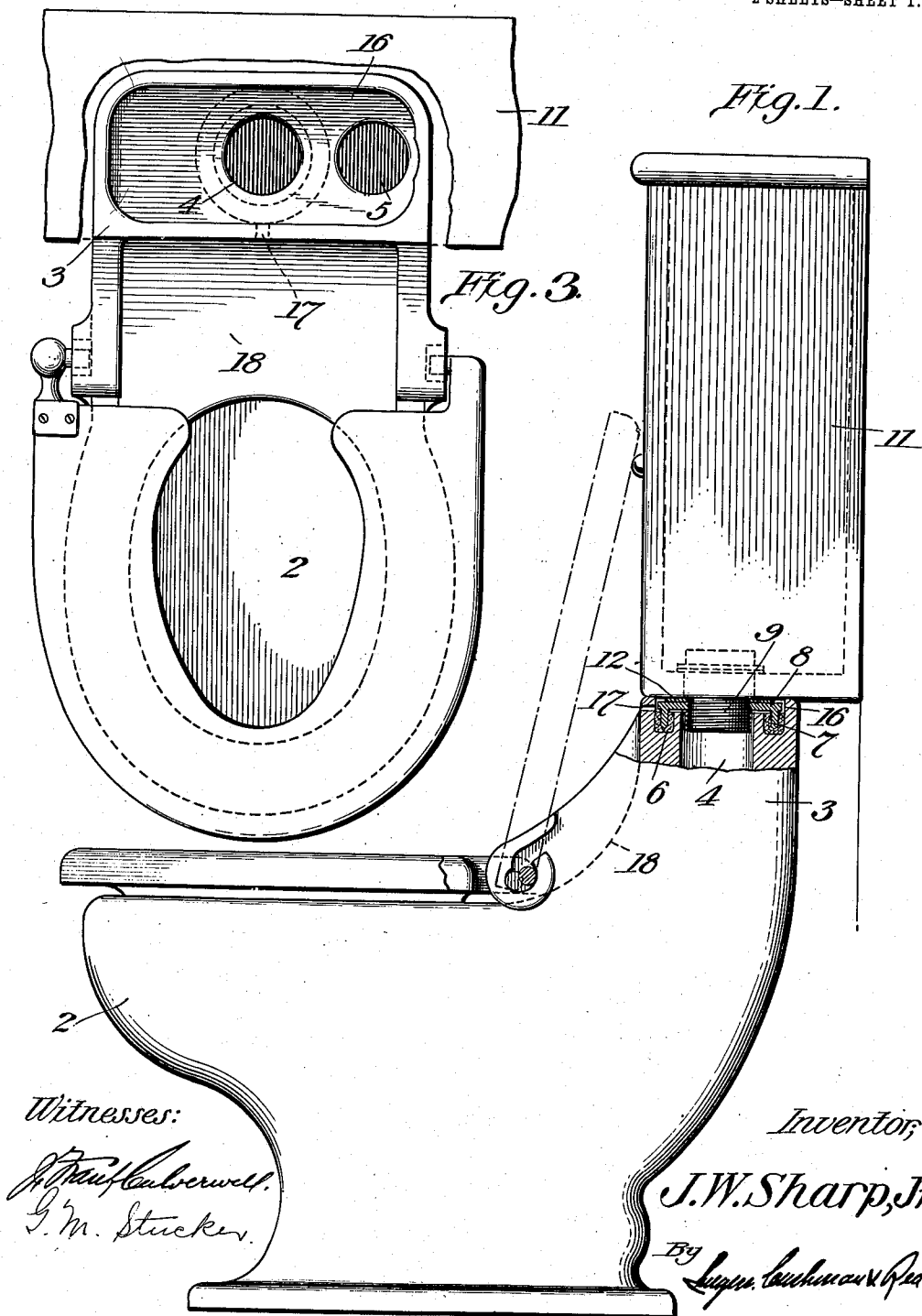


J. W. SHARP, JR.
 WATER CLOSET AND TANK.
 APPLICATION FILED OCT. 21, 1908.

941,539.

Patented Nov. 30, 1909.

2 SHEETS—SHEET 1.



Witnesses:

J. H. Lamberton
G. M. Stucker

Inventor,

J. W. Sharp, Jr.

By *Super. Lamberton & Co.*

Attorneys

941,539.

J. W. SHARP, JR.
WATER CLOSET AND TANK.
APPLICATION FILED OCT. 21, 1908.

Patented Nov. 30, 1909.

2 SHEETS—SHEET 2.

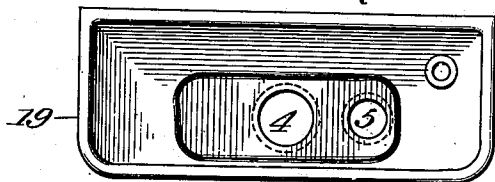
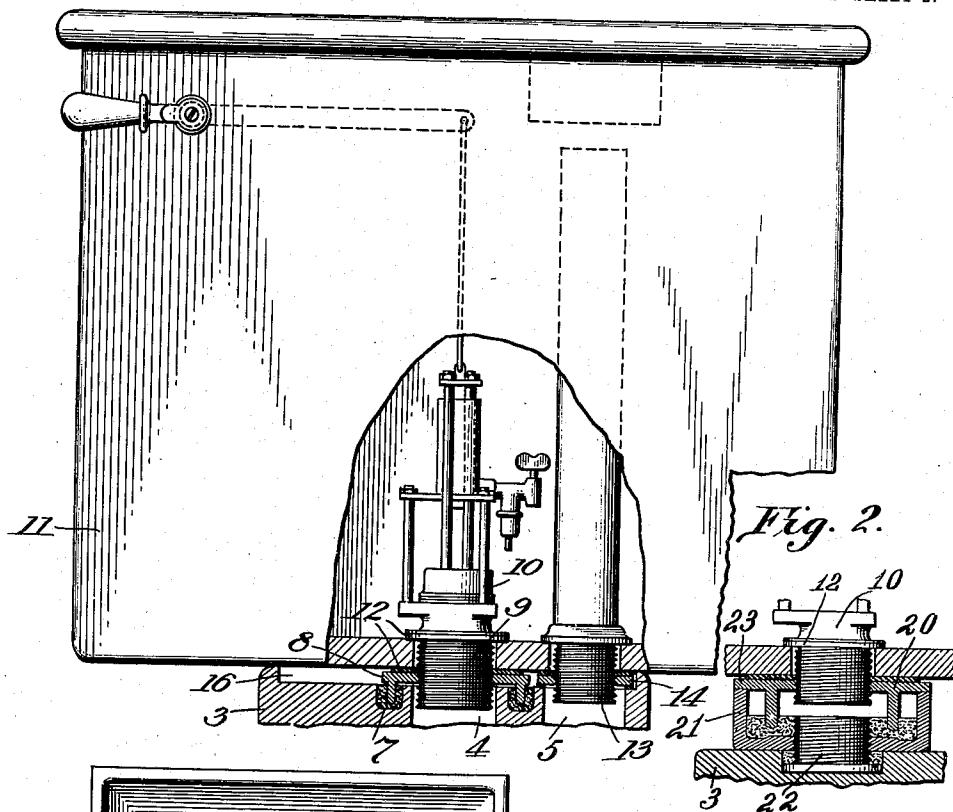


Fig. 6. Fig. 7.

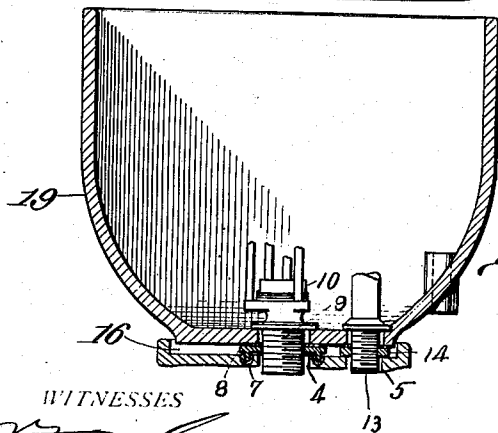


Fig. 4.

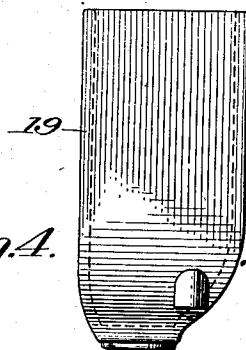


Fig. 5.

WITNESSES

J. Traubner
G. M. Stucker

INVENTOR;

J. W. Sharp, Jr.

By Eugene C. Cushman & Co.
Attorneys

UNITED STATES PATENT OFFICE.

JOSEPH W. SHARP, JR., OF PHILADELPHIA, PENNSYLVANIA.

WATER-CLOSET AND TANK.

941,539.

Specification of Letters Patent.

Patented Nov. 30, 1909.

Application filed October 21, 1908. Serial No. 458,802.

To all whom it may concern:

Be it known that I, JOSEPH W. SHARP, JR., a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented new and useful Improvements in Water-Closets and Tanks, of which the following is a specification.

The present invention relates to water closets, and particularly to closets of the low-down tank type.

It has for one of its objects to provide a construction in which the metal fittings and connections between bowl and tank are entirely or substantially concealed.

Another object is to provide closet and tank connections which may be quickly and conveniently made, without the necessity of setting up nuts and couplings, and which will at the same time effectually seal the junction between the parts.

A still further object is to provide for drainage of any water of condensation from the tank to the closet bowl, and prevent floor drippings, tanks of metal or pottery being apt to sweat and drip under certain atmospheric conditions.

In order that the invention may be clear to those skilled in the art I have illustrated in the accompanying drawings one embodiment thereof, and in said drawings: Figure 1 is a side view of a closet embodying my invention, parts of the construction being in section for clearness. Fig. 2 is a front view of a tank with a portion of the closet and the connections in section. Fig. 3 is a plan view to show the lay out of the parts and connections. Figs. 4, 5 and 6, are, respectively, front, side, and top views of a pottery or metal tank to show the drainage feature for condensation and drip. Fig. 7 is a slightly different form of tank and bowl connection from that shown in Fig. 2, although embodying the same generic features.

Referring to the drawing by numerals, like numbers indicating like parts in the several views, 2 designates a closet bowl, which, so far as its main features are concerned may be of any suitable or desired type. The said bowl 2 is provided at its rear with an upstanding portion 3, through which pass such bowl-flushing and ventilating passages as may be used, as, for example, passages 4 and 5. Surrounding at least one

of said passages, the supply passage 4 in the present instance, is a groove or seat 6 of considerable depth, said seat 6 being designed to receive the downwardly projecting flange 7 on a valve nut 8 which engages the end 9 of the valve 10 which projects downwardly through the bottom of the tank 11, the usual packing rings 12 being interposed between the nut 8 and tank bottom and the valve bottom and tank floor. Similarly the vent pipe 13, where one is used, is secured in place by nut 14, as clearly shown in Fig. 2.

The tank 11, shown in Figs. 1 and 2, is of the ordinary type, and as will be clear, rests upon the raised portion 3 of the bowl, the usual wall fastenings (not shown) being provided at rear of the tank 11. When the tank 11 is placed on the raised portion 3 of the bowl, the lower ends of the valved supply pipe and the vent pipe, enter the passages 4 and 5, the flange 7 on the nut 8 entering the seat 6 surrounding the passage 4, so that the tank 11 forms a flush joint with the raised portion 3 of the bowl, and all fittings and connections are inclosed and concealed.

The seat 6 for the nut flange 7 will, in practice, be filled with cementitious or sealing compound 15 in which the flange will embed itself and an absolutely tight joint will thus be secured.

The top of the raised portion 3 of the bowl has a depression or sink 16 formed therein, from which provision is made for drainage, such as a drainage groove or hole 17 leading to a sloping or curved wall 18 at the back of the bowl 2, so as to drain the contents of the sink 16 directly to the bowl, although obviously any suitable drain arrangement other than that shown might be adapted. This drainage feature is designed for use with tanks of metal or pottery, such as shown in Figs. 3, 4 and 5, the tank 19 being sloped downward to its bottom, so that the area of the bottom is slightly less than the area of the sink 16. The result of this construction is that when the tank 19 is in position on the raised portion 3, all drippings from sweating of the tank will be directed to the sink 16, and drain to the bowl through the hole 17 and incline 18 thus preventing floor drippings.

In respect of fittings and junction the tank 19 and raised portion 3 are similar to the arrangement above described in connection with Figs. 1, 2 and 3.

In Fig. 7 the tank and bowl connection is shown as embodying a flanged nut 20 similar to that shown in the other views, but instead of dropping into a depression in the tank seat, the depending flange of this nut drops into a cup-shaped nut 21, secured to a spud 22 fixedly mounted on the tank seat. The cup-shaped nut 21 is supplied with a cementitious filling into which the depending flange of the nut 20 sinks to form the seal, the flange 23 of the nut resting upon and being supported by the flange of the cup-shaped nut 21, which, in turn, rests on the tank seat. This construction takes all strain off the joint between the tank and bowl, and furthermore provides a joint which may be separated without the necessity of unscrewing the connecting parts.

It will be seen that in both the form shown in Figs. 1 and 2, and that shown in Fig. 7, the weight of the tank tends always to force the flange of nut 20 down into the sealing compound and make a tight joint. When it is desired to separate the tank and bowl, this joint may be broken out without disturbing any of the fittings, and if, as preferred, a cementitious substance sensitive to heat is used, the joint may be loosened by heating the metal parts, including nut 20, in any suitable manner, as by the application of hot water, and the parts readily separated.

It is obvious that some latitude of structure from that disclosed may be indulged in without departing from the spirit of my invention.

Having fully disclosed my invention, I claim:

1. The combination with a closet bowl, of a raised tank support at the rear thereof of extended area to receive a tank, a tank resting on said support, and concealed tank and bowl fittings and connections between the parts.

2. The combination with a closet bowl having a tank seat at its rear of extended area to receive a tank and provided with passages, of a tank having a flush fit on said seat, and tank and bowl fittings and connections concealed between the parts.

3. The combination with a closet bowl having a tank seat at its rear provided with passages, of a tank having a flush fit on said seat and provided with projecting fittings which enter said bowl passages, and means for forming a concealed and sealed joint between said connections between the bowl and tank.

4. The combination with a closet bowl having a tank seat at its rear provided with a passage, of a tank, a valve in said tank having a projecting connection to enter said

bowl passage, a valve nut, and a sealing seat around said bowl passage to receive said nut.

5. The combination with a closet bowl having a tank seat at its rear provided with a passage, of a tank, a valve in said tank having a projecting connection to enter said bowl passage, a valve nut having a depending flange, and a sealing seat around said bowl passage to receive said flange.

6. The combination with a closet bowl having a tank seat at its rear provided with a passage, of a tank, a valve in said tank having a projecting connection to enter said bowl passage, a valve nut having a depending flange, a seat around said bowl passage to receive said flange, and a sealing compound in said seat to embed said flange.

7. The combination with a closet bowl having a tank seat at its rear, of a tank resting on said seat and surrounded by an open drip space to receive tank drippings.

8. The combination with a closet bowl having a tank seat at its rear, of a tank resting on said seat and within the marginal area thereof so as to drain tank-sweat drippings to said seat, and means to carry off the drippings which pass to said seat.

9. The combination with a closet bowl having a tank seat, of a tank resting on said seat within the marginal area thereof, and a drip sink in said seat to catch drippings from said tank.

10. The combination with a closet bowl having a tank seat provided with a drip sink, of a tank resting on said seat within said sink, and a drainage duct leading from said sink.

11. The combination with a closet bowl having a tank seat provided with a drip sink, of a tank resting on said seat within said sink, and a drainage duct leading from said sink to the closet bowl.

12. The combination with a closet bowl having a tank seat provided with a drip sink, a sloping wall leading from said seat to the closet bowl, a tank having its walls sloping inwardly toward its bottom resting in said sink, and a drainage duct leading from said sink to said sloping closet wall.

13. The combination of a closet bowl having a tank seat provided with bowl passages, a tank, a coupling element projecting from one of said parts, a flanged coupling nut engaging said projecting part, and a flange-receiving cup surrounding said bowl-passage.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOSEPH W. SHARP, Jr.

Witnesses:

MORTIMER A. JONES,

W. BURTON RICHARDS.