(No Model.) 2 Sheets—Sheet 1.

A. M. KING.

WATER CLOSET.

No. 525,659. Patented Sept. 4, 1894.

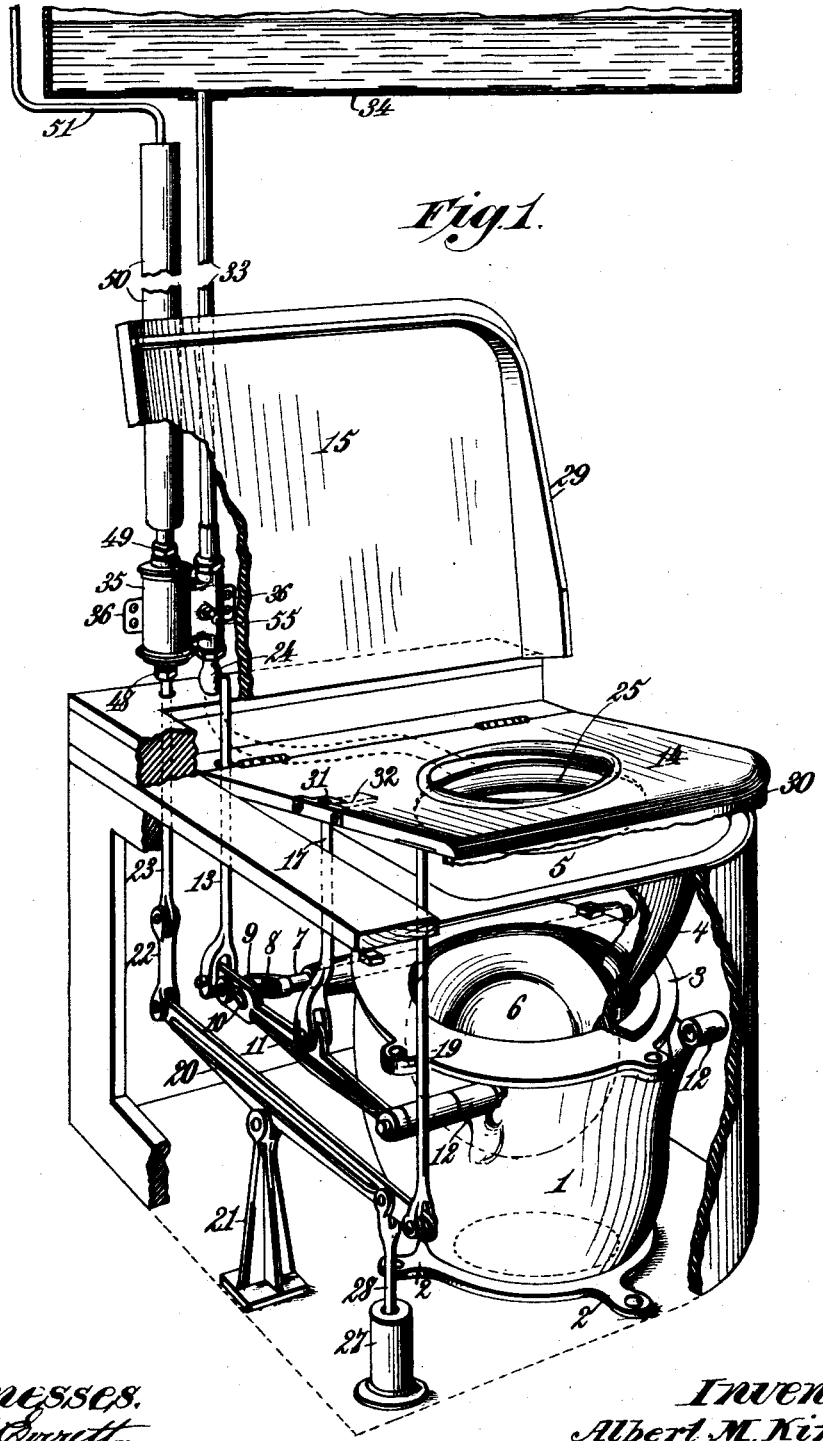


Fig 1.

Witnesses.
Robt Corrett.
G. N. Rea.

Inventor.
Albert M. King.
By James L. Norris.
Atty.

(No Model.) 2 Sheets—Sheet 2.

A. M. KING.

WATER CLOSET.

No. 525,659. Patented Sept. 4, 1894.

Fig. 3.

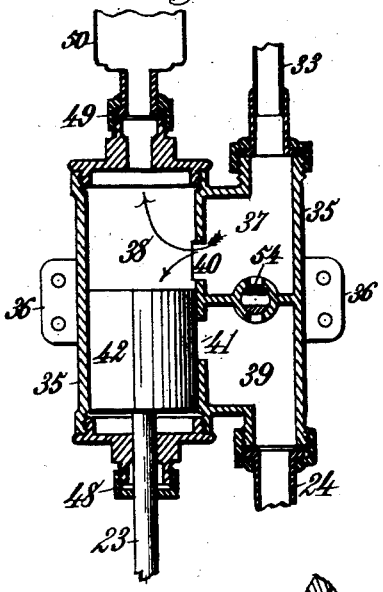


Fig. 4.

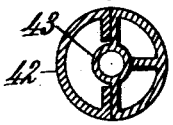


Fig. 5.

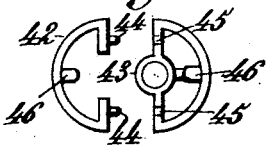


Fig. 6.

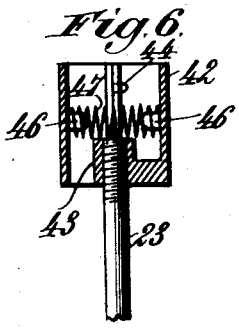


Fig. 7.

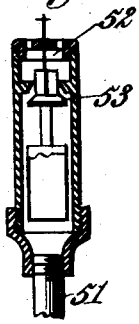
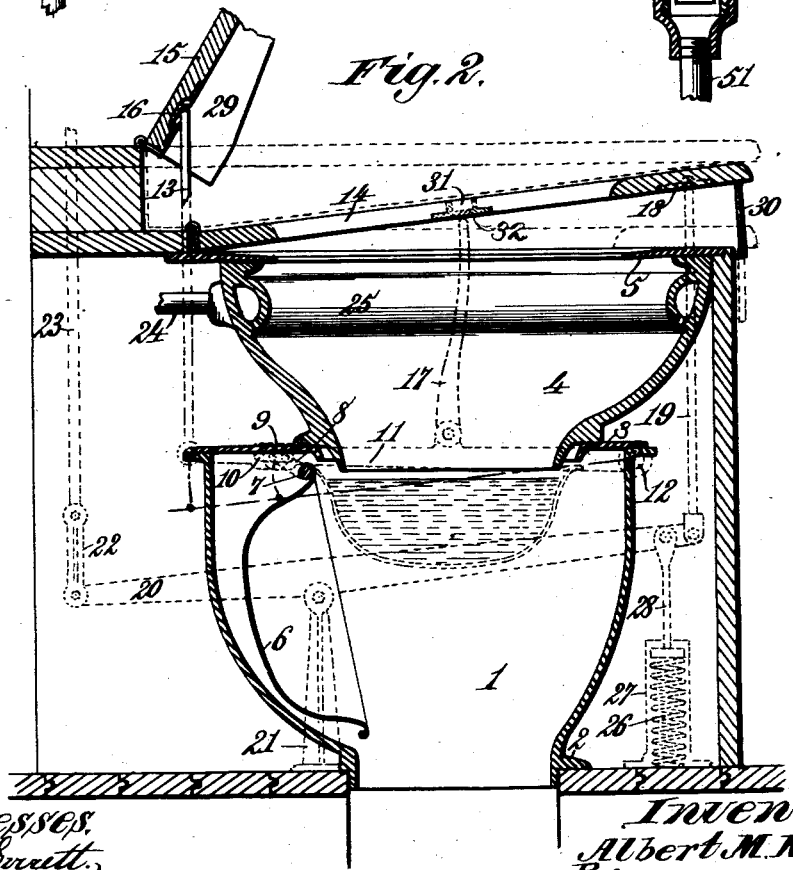


Fig. 2.



Witnesses.
Robt Garrett.
G. W. Rea.

Inventor.
Albert M. King.
By James L. Norris
Atty.

UNITED STATES PATENT OFFICE.

ALBERT M. KING, OF WILMINGTON, DELAWARE.

WATER-CLOSET.

SPECIFICATION forming part of Letters Patent No. 525,659, dated September 4, 1894.

Application filed February 8, 1894. Serial No. 499,526. (No model.)

To all whom it may concern:

Be it known that I, ALBERT M. KING, a citizen of the United States, residing at Wilmington, in the county of New Castle and State of Delaware, have invented new and useful Improvements in Water-Closets, of which the following is a specification.

My invention relates to that class of water-closets that are more particularly designed for use on railway cars, or in places where there is only a limited supply of water and in which, for purposes of economy, it is desirable to automatically supply a self dumping service pan with a measured or definitely regulated quantity of water by the action of a valve that is controlled through a lever connected with a yieldingly supported seat adapted to be oscillated at each use of the closet.

It is one of the objects of my invention to provide simple and improved lever mechanism intermediate a hinged or swinging service pan and the seat and lid of the closet, whereby, the pan will be swung into a normally horizontal position beneath the closet bowl, and be held there, either by the closing down of the closet lid or by the depression of the seat when the closet is used. The weight of the closed down lid or the pressure exerted by the depressed seat will hold the pan in its horizontal position so that it will exclude dust and cold air and prevent the entrance thereof into the car through the closet bowl.

Another object of my invention is to provide simple means for operating the water regulating valve through lever mechanism actuated only with the movements of the seat and wholly independent of the movements of the closet lid.

A further object of the invention is to so construct and arrange the devices for supplying the service pan with a measured quantity of water, and especially the water regulating valve and ports, that no dribbling or waste can occur; it being impossible for the said valve to open or uncover either the inlet or outlet port or passage of the measuring apparatus until after the other port or passage has been completely closed.

My invention also has for one of its objects to prevent any disabling of the operative parts of the closet from retention of water in any exposed situation, the water supply tank and measuring devices being so located as to be ordinarily surrounded by the warm air of the car and provision being made for draining them when the running of the car is discontinued; while the service pan is self dumping, by action of gravity alone, immediately after each use of the closet, and cannot hold any liquid except during the time that the closet seat is occupied.

It is a further purpose of my invention to provide a simple means for rendering the service pan inoperative from the seat whenever it becomes necessary to use the closet without water, as when the usual water supply has been exhausted.

My invention has for other objects such simple construction and easily changed arrangement of the several parts of a water closet apparatus and its automatic water regulating mechanism that the same can be readily located in any situation, whether in a railway car or elsewhere, without affecting the operation of the closet.

The invention consists in features of construction and novel combinations of devices in a water closet as hereinafter more particularly set forth.

In the annexed drawings illustrating the invention, Figure 1 is a perspective of my improved water closet with parts of the casing broken away, and showing also the mechanism for regulating the water supply. Fig. 2 is a sectional elevation of the lower part of the closet. Fig. 3 is an enlarged sectional detail view of the mechanism for automatically controlling the supply of a measured quantity of water to the water closet. Figs. 4, 5 and 6 are detail views of the water regulating valve. Fig. 7 is a sectional view of a check-controlled vent for the stand-pipe or measuring chamber.

Referring to the drawings the numeral 1 designates a discharge-hopper preferably constructed from some suitable metal and provided on its lower portion with a flange, or projections, 2 through which it is adapted to be securely bolted to the floor, whether in a railway car or elsewhere. The hopper 1 may be provided with a cover 3 having an opening therein for connection with the lower open end of a bowl 4 that may be arranged to rest

on said cover or be otherwise supported by the hopper. The bowl may be made of porcelain or other customary material and is preferably provided at the top with an annular inwardly inclined drip rim 5, as shown.

A service pan 6 is rigidly secured to a rock-shaft 7 mounted in suitable bearings in the upper rear portion of the hopper 1 in such position that the pan will be adapted to control the outlet end of the bowl. One end of the rock-shaft 7 projects beyond the hopper 1 and is provided with a rearwardly projecting crank arm 8 having a wrist 9 engaged in a slot 10 formed in a lever 11 the forward end of which is fulcrumed to a fixed support that is preferably provided by a lug 12 projecting from the side of the hopper. I prefer to arrange a lug 12 on each side of the hopper, as shown in Fig. 1, in order that the lever 11 and its connections may be placed on either side of the closet or be changed from one side to the other according to the position in which it may be found most desirable or convenient to place the closet.

To the rear end of the slotted lever 11 is pivotally connected the lower end of a vertically arranged rod 13 that is extended through suitable guide openings in the frame work of the closet and has its upper end projecting sufficiently above the closet seat 14 to be subjected to the pressure of the hinged lid or cover 15 as the latter is closed down over the seat. On the under face of the lid 15 at one side and near its rear edge is a concaved bearing plate 16 for contact with the upper end of the rod 13 in closing down the lid. It will now be seen that in closing the lid 15 the rod 13 will be forced down and will thereby cause the slotted lever 11 to bear down on the crank 8 and thus rock the shaft 7 in such direction as to raise the pan 6 and hold it in an elevated or horizontal position immediately below the outlet of the bowl. At this time the pan 6 does not contain any water because the movements of the lid 15 are entirely independent of the valve mechanism, hereinafter described, through which water may be supplied when required. By occupying the horizontal position above referred to the pan 6 assists the closed lid 15 in preventing the access of dust and cold air into the car through the water closet bowl; and being free from water while the closet is not in use, the pan is not liable to freezing.

To the slotted lever 11, about midway its length is pivotally connected the lower end of a vertical rod 17 that is extended through guide openings in the closet frame and has its upper end in position to be subjected to the downward pressure of the hinged seat 14 while the closet is in use. On raising the hinged lid 15 to get access to the closet seat the rod 13 will be relieved from the pressure of said lid and will permit the pan 6 to swing down by gravity and thus occupy a nearly vertical position in a rearwardly bulging portion of the hopper. Now, by the weight of a person using the closet, the hinged seat 14 will be caused to press down the rod 17 and connected lever 11 so as to act on the rock-shaft 7, through the crank 8, and again raise the pan 6 into horizontal position below the bowl.

The under face of the hinged seat 14 is provided on one side and near the front edge of the seat with a concaved bearing plate 18 that is in contact with the upper end of a vertically projecting rod 19 the lower end of which is pivotally connected to the forward end of a two armed lever 20 preferably fulcrumed, intermediate its ends, to a standard 21 secured to the floor on one side of the closet. At its rear end the lever 20 is connected by a link 22 with the lower end of a valve rod 23 for actuating a valve mechanism, presently explained, that is so constructed and arranged as to deliver a measured quantity of water to the pan 6 through a pipe 24 communicating with a perforated ring or bead 25 in the upper flared portion of the bowl. On pressing down the hinged seat 14, as by the weight of a person using the closet, the rod 17 will first actuate the lever 11 to raise the service pan 6 into proper horizontal position (the said pan having been previously swung downward and backward by the lifting of the closet lid), and the rod 19 acting through the lever 20 and valve rod 23 will immediately cause the supply of a measured quantity of water or enough, say, to barely fill the pan 6 and avoid unnecessary waste.

After the closet has been used and when the seat 14 is relieved from pressure its automatic elevation may be effected by means of a spring located at any suitable point. For this purpose, and also to restore the valve mechanism to normal position, I prefer to arrange a spirally coiled spring 26 in a cylindrical casing 27 that is bolted to the floor at one side of the closet. When the closet seat 14 is depressed the spring 26 is compressed by a plunger 28 carried by the lever 20 and when the occupant of the closet rises the power stored in the compressed spring returns the lever 20 to its former position thereby causing the rod 19 to lift the hinged seat 14 while the valve rod 23 descends and carries the valve mechanism into position to permit refilling of the chamber from which the pan 6 was supplied with a measured quantity of water. The automatic lifting of the hinged seat 14 takes off the pressure from the rod 17 and lever 11 thereby releasing the rock-shaft 7 and permitting the pan 6 to swing by gravity into a rearward and substantially vertical position, by which movement the contents of the pan are washed out and dumped through the discharge-hopper 1 onto the roadway beneath the car. The hinged lid 15 being now closed down and pressing on the rod 13 so as to cause it to descend and remain in a depressed position the empty pan 6 will be carried to its normally horizontal position beneath the bowl 4 and be held there to pre-

vent any access of dust or cold air through the hopper and bowl until the lid is again raised to permit use of the closet.

Between the closed lid 15 and the top of the bowl 4 is a space of sufficient height to permit the hinged seat 14 to assume a normally inclined position. The lid 15 may be provided on one side and also at the front, if preferred, with a suitably formed flange 29 to inclose the space between the closed lid and the top of the hinged seat 14 and the latter may be provided with a corresponding flange 30 to inclose the space between the under side of the inclined seat and the top of the bowl. These flanges are not required on both sides of the lid and seat when the closet has one side built closely against a wall or partition as is usual in the corners of railway cars.

It may sometimes be necessary to use the closet when no water can be obtained or after the usual water supply has been exhausted. In such use of the closet the pan 6 is not required and would, in fact, be objectionable in the absence of any means for thoroughly cleansing it after each service. It is, therefore, desirable to provide some means for rendering the pan 6 inoperative when the water supply is exhausted or inadequate. For this purpose a small opening 31 is provided in the hinged seat 14 directly over the upper end of the rod 17 and a slide 32 is arranged in the under side of the seat in such position as to be capable of controlling the said opening. By drawing said slide 32 outward a sufficient distance to close the opening 31 the slide will be in position to serve as a bearing for the rod 17 in elevating the pan 6 on depression of the hinged seat 14 as already described. But by pushing the slide 32 backward the under side of the opening 31 will be exposed. If the seat 14 is now depressed, as by the weight of a person using the closet, the opening 31 will permit the passage of the upper end of the rod 17 without exerting any pressure thereon and the pan 6, which was previously lowered and thrown backward by the raising of the lid 15, will remain in a vertically depending position in the rearwardly bulging portion of the hopper 1 and entirely out of the way. While the pan 6 is thus rendered inoperative from any movement of the seat 14 it is still capable of being actuated through the rod 13 and thus thrown into horizontal position beneath the bowl 4 on closing down the hinged closet lid. On again raising the lid the pan drops by gravity, as before described, and being temporarily inoperative from the seat, it will permit a cleanly use of the apparatus, as a dry closet.

A water supply pipe 33 may connect with an ordinary system of house-service pipes, as in a dwelling or other building, or with a supply tank 34 located at a suitable elevation. In railway cars this tank 34 is supported in the upper part of a car where it will be usually surrounded by warm air and thus have its contents protected from freezing. As shown in Figs. 1 and 3, the water supply pipe 33 connects, by suitable couplings, with one side of a valve casing 35 having thereon perforated lugs or brackets 36 by which it can be fixed to a convenient support. The interior of the casing 35 is divided by suitably perforated partitions into three communicating compartments 37, 38 and 39, as shown in Fig. 3. In the construction shown the compartments 37 and 39 occupy one side of the casing and are arranged one above the other. The larger compartment 38 occupies the other side of the casing and is preferably of cylindrical form. The compartment 37 receives water from the pipe 33 and conducts it through a port or perforation 40 into the large compartment 38 that is adapted to communicate, at the proper time, through a port or perforation 41, with the compartment 39 which in turn communicates with the pipe 24 leading to the bowl 4 and thence to the elevated service pan 6 of the water closet. In the large cylindrical compartment 38 is arranged a hollow open-ended cylindrical valve 42 of sufficient length to control the ports 40 and 41 in such manner that neither port will open until the other is completely closed. This valve 42 is attached to and carried by the valve rod 23 that is actuated alternately, from the hinged seat 14 and spring 26 through the lever 20 and its connections as heretofore described. As shown in Figs. 4, 5 and 6, the valve 42 is preferably made in two semi-cylindrical parts one of which is webbed internally and provided with a socket 43 for attachment to the end of the valve rod. The other semi-cylindrical part is also webbed or flanged internally, as shown, and the webbing of one part is provided with pins or studs 44 to engage in corresponding perforations 45 in the other part and hold together the two sides of the valve. In each half of the hollow valve 42 is a short stud 46 for supporting a transversely arranged spirally coiled spring 47 by which the two sides of the valve are forced outward sufficiently to have a close fitting engagement in the valve casing.

The lower end of the valve casing compartment 38 is closed by a suitably perforated screw cap to which may be attached a stuffing box 48 for passage of the valve rod. At the upper end of the compartment 38 is a similarly perforated screw cap for connection, through a suitable pipe coupling 49, with the lower end of a stand pipe or measuring chamber 50 that serves as an auxiliary reservoir from which a measured quantity of water is supplied to the pan of the closet, at the proper time. To the upper end of the stand pipe or measuring chamber 50 may be attached an air-pipe 51, Fig. 1, extended upward to a point above the highest water level of the tank 34 and open at the top for admission of air above the water in the measuring chamber.

If the closet is placed in a dwelling or other building and the measuring chamber connected with the usual water service, any lia-

bility of waste from too great head of water may be prevented by providing the upper end of the pipe 51 with an enlarged portion or attachment having a vent opening 52 controlled by a check-valve 53, as shown in Fig. 7, or a similar construction of check-controlled vent may be applied directly to the top of the measuring chamber, whether for use in a car or house.

In the normally elevated position of the hinged seat 14, in which position the seat is supported by the rod 19, the valve 42 for controlling the supply of water will occupy such position in the lower part of the compartment 38 as to wholly close the lower port 41 and leave the upper port 40 open. While the valve 42 remains in this lowered position water from the supply pipe 33 will enter the inlet compartment 37 and pass thence through the open port 40 into the main compartment 38 and within the valve and will also rise and fill the stand-pipe or measuring chamber 50 communicating with the valve casing. But it cannot pass into the outlet compartment 39 and pipe 24 so long as the port 41 continues to be closed by the valve. If the slide 32 of the seat 14 is in proper position to close the opening 31, depression of the seat, as in using the closet, will push down the rod 17 and cause the pan 6 to be lifted into a horizontal position, as previously explained. The downward movement of the seat will also push down the rod 19, tilt the lever 20 and lift the rod 23 and attached valve 42 a sufficient distance to, first, entirely close the inlet port 40 and then fully open the outlet port 41; the length of the valve being such, with relation to the position of the ports 40 and 41, that neither port can be opened until the other has been completely closed. This arrangement will prevent any dribbling or waste of water through the valve or its casing. The lifting of the valve 42 and consequent opening of the outlet port 41 will permit the water in the compartment 38 and stand-pipe or measuring chamber 50 to descend through the hollow valve 42, outlet compartment 39 and pipe 24 to the water closet bowl 4 and thence to the pan 6, now in its horizontal position. The valve 42 remains in its elevated position while the seat of the closet is occupied, thus continuing to close the inlet port 40 and preventing any waste of water from the main source of supply.

On ceasing to use the closet the removal of pressure from the seat will permit its ascent under action of the spring 26, thus releasing the pan 6 and allowing it to swing with a depending position, by gravity, and dump its contents. At the same time the action of the spring 26, in restoring the lever 20 to its former position, will cause the rod 23 to draw down the valve 42 so that it will, first, completely close the outlet port 41 and then fully open the inlet port 40 to permit refilling of the measuring chamber 50 with water. The capacity of the measuring chamber or stand-pipe 50 and compartment 38 should be about the same as, or a little less than, the service pan 6 so that no unnecessary loss of water will be incurred in using the closet.

If the car should be put out of service in cold weather it may be desirable to drain the water supply tank 34 and stand-pipe 50 to prevent freezing of their contents. For this purpose a suitable cock or turn plug 54 may be arranged to control an opening or passage in the partition between the compartments 37 and 39 of the valve casing, as shown in Fig. 3, and a squared head 55, Fig. 1, may be provided on a projecting end of said turn plug to permit its adjustment with a wrench. By turning the cock or plug 54 in the proper direction to establish direct communication between the compartments 37 and 39 and lifting the hollow-valve 42 the tank 34 and stand-pipe 50 can be quickly drained at one operation, thus obviating any necessity for repeated oscillations of the closet seat in order to exhaust the supply of water.

The several parts of the closet are so constructed and made capable of such arrangement with relation to each other that in putting the closet into a car it can be properly placed with equal readiness on either side of the car or in either corner thereof and can be changed, if necessary, from its original position to any other location without difficulty; the operating levers and their connections and supports and other parts of the mechanism being easily shifted from one side of the closet to the other. If it should be necessary, in making any change of location in the closet, the valve casing 35 can be easily disconnected and be reversed or turned end for end so as to bring it into proper relation with other parts. Such changes of location or position will not affect the described operation of the water supply regulating mechanism nor other parts of the apparatus and will not impair the efficiency of the closet nor interfere in in any way with its proper use.

It will be seen that the closet is well adapted for use either with or without water. It is not exposed to injury from freezing, as no water can be left standing in the pan. The water supply tank and stand-pipe can be quickly drained when the car is side tracked or put out of service, should this be required. While the closet is not in use the closed lid and horizontal position of the pan prevent any access of dust or cold air into the car through the bowl; and the several parts of the apparatus are of such durable and simple construction that they can be easily put in place in any required position and are not liable to become broken or disarranged by hard usage.

By constructing the water regulating valve 42 in separate parts or halves that have a close spring seated engagement in the surrounding casing all possibility of leakage at

either of the ports 40 or 41 is effectually prevented; and this feature is of special advantage in railway cars and other places where the supply of water is limited and requires to be economized. It is obvious that instead of a spiral spring 47 any other form of spring may be used in connection with this valve to press it in close contact with the ports and thereby prevent leakage.

What I claim as my invention is—

1. In a water-closet, the combination with a movable lid and a normally elevated yieldingly supported seat, of a swinging service pan, and lever mechanism intermediate said pan and the seat and lid and adapted to be actuated both by the closing of the lid and by depression of the seat to swing the pan into a normally horizontal position and allow it to drop, by gravity, into a vertically depending position when the seat is relieved of pressure and also when the lid of the closet is raised, substantially as described.

2. The combination with a movable water closet lid, a yieldingly supported seat, and a swinging service pan rigidly mounted on a rock-shaft provided with a crank-arm, of a lever having a slot engaged with a wrist-pin on the rock-shaft crank-arm, a vertically arranged rod pivotally connected to said lever and disconnected from the lid but projecting in position to be actuated by pressure of the closing lid to swing the pan into a normally horizontal position and allow it to drop by gravity when the lid is raised, and lever mechanism intermediate the said pan and closet seat for raising the pan on depression of the seat and allowing it to drop when the seat is relieved of pressure, substantially as described.

3. The combination with a yieldingly supported water closet seat, a movable lid, and a swinging service pan rigidly mounted on a rock-shaft provided with a crank-arm, of a pivotally supported lever having a slotted connection with a wrist-pin on said crank-arm, a vertically arranged rod having its lower end pivotally connected to said lever and its upper end disconnected from the closet seat but adapted to be actuated by depression of the seat to swing the pan into a horizontal position and allow it to drop by gravity when the seat is relieved of pressure, and lever mechanism intermediate said pan and the closet lid to lift the pan when the lid is lowered and allow it to drop when the lid is raised, substantially as described.

4. The combination with a yieldingly supported water-closet seat having on one side an opening or recess controlled by a slide, of a swinging service pan, and lever mechanism intermediate said pan and seat and comprising a vertically extended rod adapted to be actuated by depression of the said seat to lift the pan into a horizontal position when the said opening in the seat is closed by the slide, the said slide being movable to expose the said opening and permit passage of the rod so as to allow depression of the seat without lifting the pan, substantially as described.

5. The combination with a yieldingly supported water-closet-seat, a swinging service pan, means for supplying the pan with water when in position for use, and a valve for regulating the supply of water to the pan, of lever mechanism intermediate the seat and pan and comprising a vertically extended rod disconnected from the seat but adapted to be actuated by depression of said seat to throw the pan into a horizontal position, means for rendering the said lever mechanism of the pan inoperative from the seat, and a lever fulcrumed intermediate its ends and connected with rods through which the water regulating valve is actuated from the depressed water-closet seat, substantially as described.

6. The combination with a water-closet bowl, a movable seat, and means for supplying a measured quantity of water, of a cylindrical valve casing provided with inlet and outlet ports or passages, a cylindrical valve controlling said ports and adapted and arranged to completely close either port before opening the other, a lever fulcrumed intermediate its ends and having one end connected with the valve-rod and its other end carrying a rod adapted to be actuated by depression of the closet-seat to move said valve into position for delivering a regulated supply of water, and means for restoring the said lever, the valve and the seat after use of the closet, substantially as described.

7. The combination with a movable water-closet seat, a swinging service pan adapted to be actuated by depression of the seat to lift said pan into a horizontal position, and a stand-pipe or water measuring chamber, of a cylindrical valve casing connected with said stand-pipe and with a water supply and having inlet and outlet ports or passages, a cylindrical open ended valve controlling said ports and adapted and arranged to completely close either port before opening the other, and valve operating mechanism actuated by depression of the seat to cause said valve to supply the pan with a regulated quantity of water, substantially as described.

8. The combination with a movable water-closet seat, a service-pan adapted to be swung into a normally horizontal position by depression of said seat, and a stand-pipe or water measuring chamber, of a valve-casing connected with said stand-pipe and with a water-supply and having inlet and outlet ports, a single valve adapted and arranged to completely close either one of said ports before opening the other, valve-operating mechanism actuated by depression of the closet seat, and lever mechanism connected with the service pan and comprising a vertically extended rod disconnected from the closet-seat and adapted to be actuated by depression of the seat and be rendered inoperative from

the seat when the water supply is exhausted, substantially as described.

9. The combination of a movable water-closet seat, a service pan adapted to be raised into operative position by depression of said seat, a water-measuring chamber or standpipe provided with a valve-casing having an inlet port or passage for conducting water into the measuring chamber from a source of supply and an outlet port or passage for conducting a regulated quantity of water to the service pan, a single valve adapted to completely close either of said ports before opening the other, lever mechanism connected with the valve-rod and actuated by depression of the closet-seat to cause said valve to supply the service pan with a regulated quantity of water, levers intermediate the pan and seat and disconnected from the seat but adapted to be actuated by depression of the seat to swing the pan into a normally horizontal position, and means for making said levers and pan inoperative from the seat, substantially as described.

10. The combination of a movable water closet-seat, a swinging service pan, lever mechanism connected with said pan and disconnected from the seat but adapted to be actuated by depression of the seat to lift the pan into a normally horizontal position, an elevated water tank, a water measuring chamber having a valve-casing provided with inlet and outlet ports or passages connecting with said tank and with the closet, respectively, a valve adapted to completely close either of said ports before opening the other, and valve-operating mechanism actuated from the closet seat, substantially as described.

11. The combination of a water-closet bowl, a movable seat, means for supplying the closet with a measured quantity of water, a valve-casing having inlet and outlet ports or passages, a frictionally seated valve adapted and arranged to completely close either of said ports before opening the other, a two-armed lever having one end connected with the valve-rod, a seat-supporting rod connected to the other end of said lever, whereby depression of the closet seat will operate said valve, and a spring arranged to act on said lever to restore the valve and closet-seat, substantially as described.

12. The combination of a yieldingly supported water closet seat, a movable lid, a swinging service pan occupying a normally horizontal position both when the lid is closed and when the seat is depressed, lever mechanism intermediate the service pan and the said seat and lid and adapted to be actuated to lift the pan when the lid is closed or when the seat is depressed, a water measuring chamber having a connected valve casing provided with a valve for controlling the supply of a regulated quantity of water to the service pan when said pan is in position for use, and lever mechanism connected with said valve and actuated from the depressed closet seat, substantially as described.

13. The combination of a movable water closet seat, a measuring chamber from which the closet may be supplied with a regulated quantity of water, a valve casing connected with said chamber and provided with an inlet port or passage and an outlet port or passage, a water regulating valve adapted to completely close one of said ports before opening the other and provided with a spring by which the said valve is seated in close contact with either port to prevent leakage, and valve operating mechanism actuated from the closet seat, substantially as described.

14. The combination with a water closet, of a valve casing provided with an inlet port or passage and an outlet port or passage, and a water regulating valve adapted to completely close one of said ports before opening the other and constructed in sections that are pressed apart by a spring to seat the valve in close contact with either port and prevent leakage, substantially as described.

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

ALBERT M. KING. [L. S.]

Witnesses:
WM. E. HAWKINS,
THOMAS TATNALL.