

(No Model.)

3 Sheets—Sheet 1.

W. J. WHARTON & J. T. NALLS.
PRIVY.

No. 432,461.

Patented July 15, 1890.

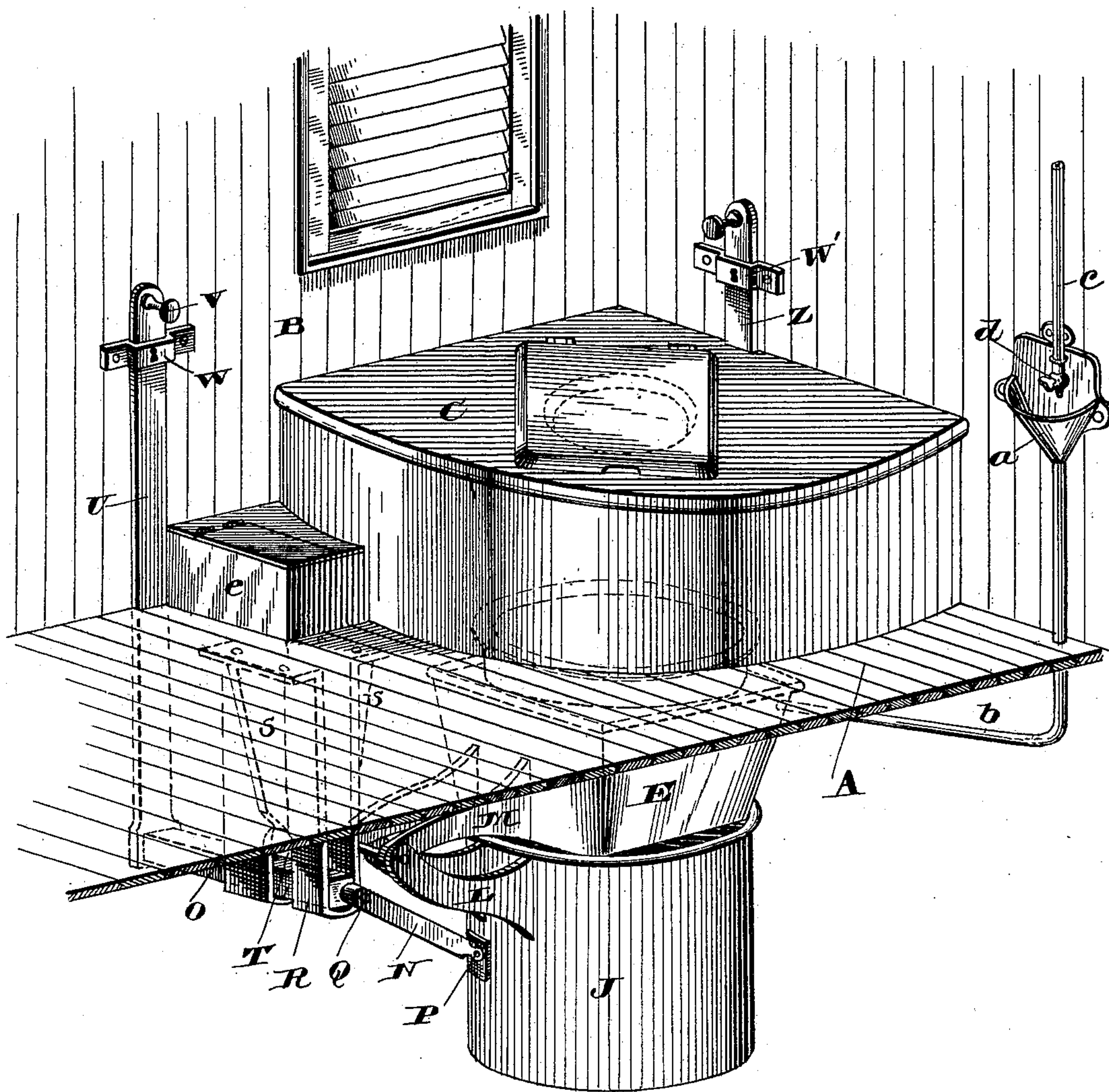


Fig. 1.

WITNESSES:

F. L. Osgood.
Samuel Jones.

INVENTORS:

William J. Thornton and
John E. Males,
by James Cagney & Co.
Attorneys.

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Fig. 2.

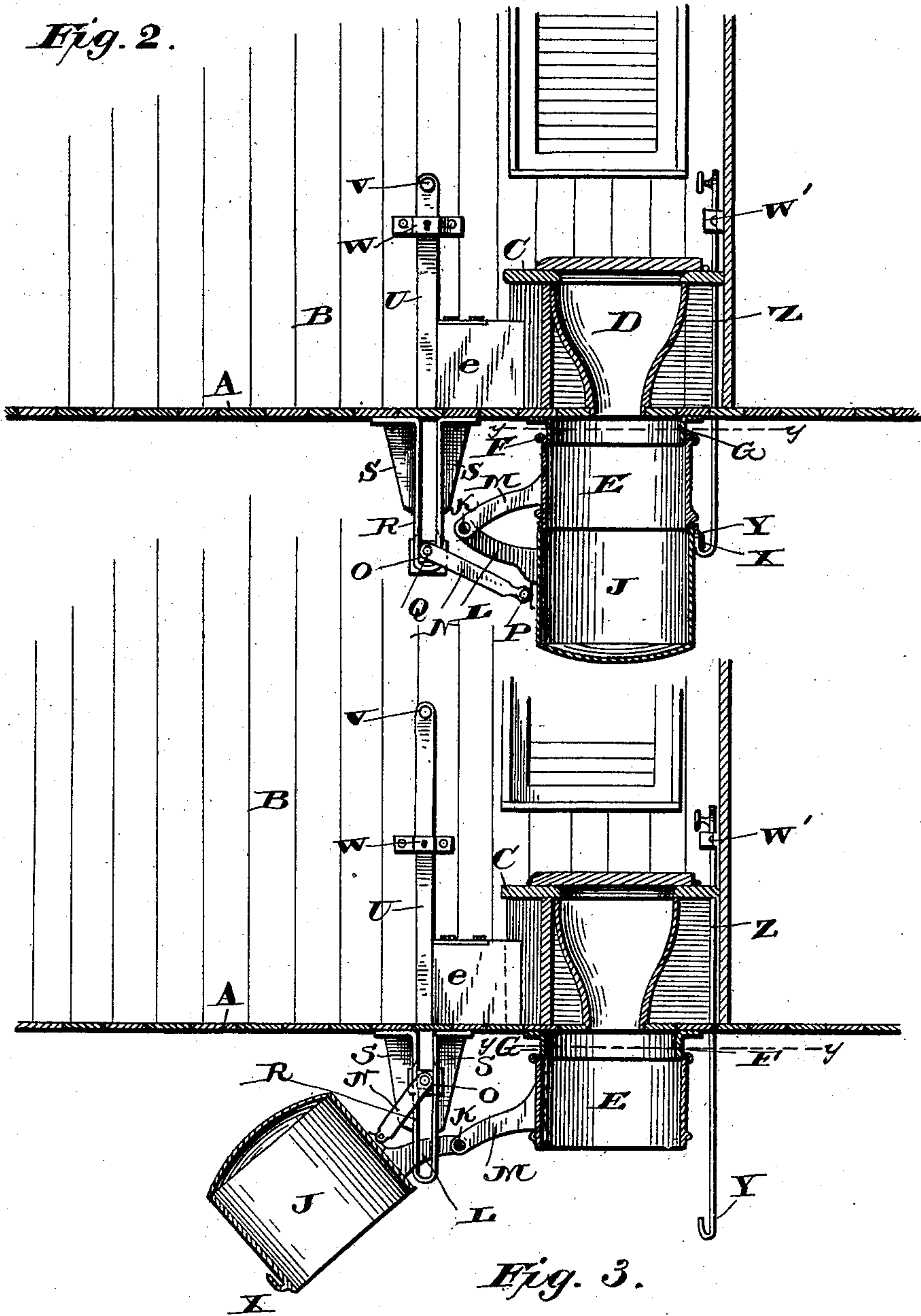


Fig. 3.

WITNESSES:

F. L. Ouzand.
Samuel H. Jones.

INVENTORS.

William J. Wharton and
John T. Nalls,
by Sams, Rogers & Co.,
Attorneys.

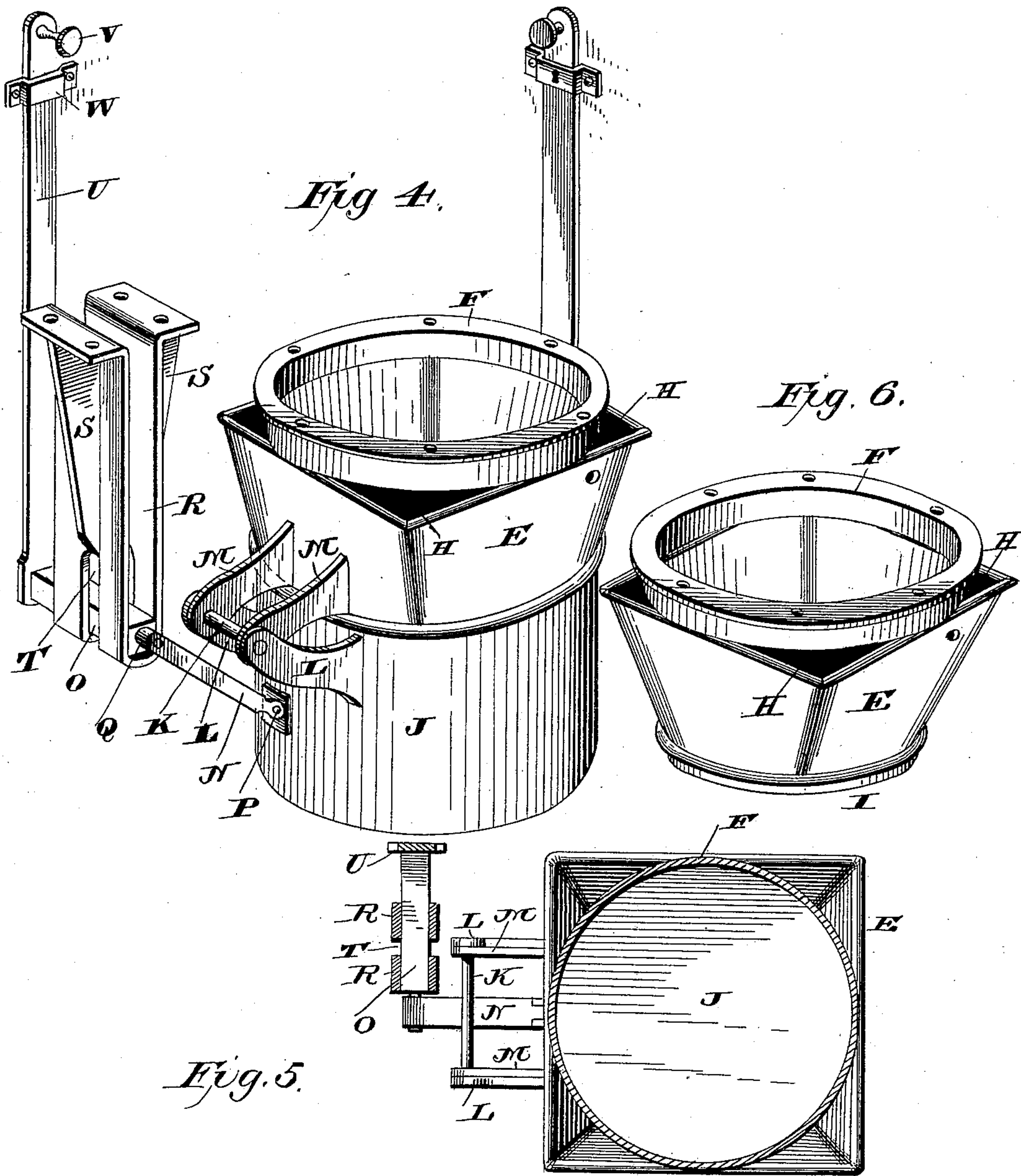
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WITNESSES:
F. L. Ourand.
Demetrius Jones.

INVENTORS:
William J. Wharton
John T. Nalls
J. E. Rogers & Co.
Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM J. WHARTON, OF WASHINGTON, DISTRICT OF COLUMBIA, AND
JOHN T. NALLS, OF ALEXANDRIA, VIRGINIA.

PRIVY.

SPECIFICATION forming part of Letters Patent No. 432,461, dated July 15, 1890.

Application filed April 7, 1890. Serial No. 346,930. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM J. WHARTON, of Washington, in the District of Columbia, and JOHN T. NALLS, of Alexandria, in the county of Alexandria and State of Virginia, have invented certain new and useful Improvements in Privies; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of our improved privy, showing the same in position as an attachment to the toilet-room of a railway-car, the walls and part of the flooring of the room having been broken away to show the construction and arrangement of the apparatus. Fig. 2 is a sectional view, on a longitudinal vertical plane, of the apparatus, showing the bucket attachment in its closed position. Fig. 3 is a similar view of the apparatus, but showing the bucket attachment in its open position. Fig. 4 is a perspective detail view of the bucket-hinge and the mechanism for operating the same. Fig. 5 is a sectional view on a horizontal plane through the upper part of the fixed bucket-support on line *y y* in Figs. 2 and 3, showing the ventilating-ducts below the car-floor; and Fig. 6 is a perspective view of the fixed ventilated bucket-support removed from the car.

Like letters of reference denote corresponding parts in all the figures.

Our invention relates to privies or water-closets which are intended more particularly for use on railway-cars; and it consists in certain improvements upon the device for which Letters Patent of the United States, No. 380,540, were issued to William J. Wharton on the 3d day of April, 1888, which said improvements will be hereinafter more fully described, and particularly pointed out in the claims.

Reference being had to the accompanying drawings, the letter A designates the floor of the toilet-room of a railway-car, and B the outer walls of the room, which are usually formed by one side and end of the car-body, the toilet-room being usually located in a cor-

ner of the car, or in the corner of one of the compartments or state-rooms in the car. In one corner of this toilet-room is located the privy-seat C, having the usual inside chute D, closed on top by a hinged lid or cover. The lower end of chute D projects through the car-floor and opens into the fixed bucket-support E, which is securely fastened to the under side of the car-floor by means of a strong flanged ring or annulus F. The upper part of the bucket-support, where it is fastened to this ring, is of a square shape, with its sides fastened securely at tangential points to the outside of ring F by bolts, screws, or in any other strong and durable manner, so that the upper part of the ring, where this is fastened by its flange to the under side of the car-floor, will project some distance above the square top of the bucket-support, thus leaving an open space G all around the same, which communicates with the interior of the lower cylindrical part of the bucket-support E through ducts or apertures H, formed by the square corners of the top or upper part of the support. From this square upper part the body of the fixed bucket-support E is made gradually tapering and rounding, so that its lower end will form a ring having a downwardly-projecting circular rim or flange I, adapted to fit closely into the circular top of the movable bucket or receptacle J. The latter is hinged to the outside of the fixed support E by means of a stout fulcrum-pin or hinge-bolt K, which is inserted through the ears L L of the bucket and corresponding ears M M, affixed to and projecting from the support E, so that in opening or reversing the bucket or receptacle J it will have a sweep to one side in the arc of a circle of which the hinge-bolt K is the center. To effect this opening and closing of the bucket in a simple and certain manner, we connect the hinged body of the bucket on one side and some distance below the hinge by a rod N to a slide O, said rod being hinged or pivoted to the bucket at P and to the slide at Q. The slide O works up and down in a strong depending bearing R, which is bolted securely to the under side of the car and provided with lateral re-enforcing webs S S to give it the required amount of stiffness and rigidity without mak-

ing it too heavy. The lower part of this bearing below its laterally-projecting re-enforcing webs is bifurcated longitudinally, so as to form a slot T, in which one of the bucket-ears L plays in opening or closing the bucket, thus acting as a guide for the same during these operations and preventing lateral play of the bucket.

To the slide O is fastened a rod U, which projects up through an aperture in the floor of the toilet-room and along the wall of the same, terminating at its upper end in a knob or handle V for operating it. This rod may be fastened either in its up or down position by means of any suitable locking device W, for which an ordinary seat-lock—such as is used on all reversible car-settees—will be found to answer the purpose.

In order to hold the free end of the bucket when in its closed position up firmly against the lower rim of the fixed bucket-support E, and thus prevent spilling or overflowing of the bucket, we provide the latter with a catch X, adapted to engage or interlock with a hook or other suitably-constructed locking device Y at the lower end of a vertically-sliding rod Z, which, like rod U, projects up through the privy-floor, has a knob or handle at its upper end, is provided with a lock W' of a similar description to that for rod U, and adapted to be opened and closed by the same key. Thus when the bucket J is in its closed position rod U is pushed down as far as it will go and locked in its down position, while, on the other hand, the supporting-rod Z is in its up position as far as it will go and locked in this position.

Within the privy and on one side of the seat C is arranged a urinal *a*, communicating by a pipe *b*, which passes through the floor, with fixed bucket-support E, so as to discharge through the same into the bucket or receptacle J. Above the urinal *a* and discharging into it is a pipe *c*, which is connected with a suitably-located water-tank or other source of water-supply, so that on opening the valve *d* in pipe *c* water will flow into the urinal and through the same and its discharge-pipe *b* into the bucket J. By this means the bucket when in use may always be supplied with a quantity of water in the bottom, so that on reversing or overturning it when opening it by depressing rod Z, and at the same time lifting the bucket-rod U, it may be effectually emptied of its contents without leaving any fecal matter or other objectionable residue. This flow of water when turned on also effectually rinses out the urinal and clears it of all offensive deposits.

If desired, the small box *e* may be located in the privy within convenient reach of the seat and filled with any suitable deodorizing compound, a little of which may be deposited into the bucket through the seat whenever the same is used as an additional means of disinfecting and deodorizing the bucket.

By the use of this apparatus in its present

improved form it will be seen that not only is the mechanism for operating—*i. e.*, opening and closing—the bucket very much simplified as well as strengthened, but by means of the space G and ducts H at the top of the fixed bucket-support and below the car-floor the bucket and its support are thoroughly ventilated, all gases and offensive odors escaping from the bucket up through the fixed support E and ventilating-ducts G H, as indicated by the arrows, instead of rising up through the seat-chute D and seat into the toilet-room, thus always keeping the air in this room pure and sweet, whether the bucket is in use or not.

While the train is running in open country the intention is to keep the bucket in the reversed or open position illustrated in Fig. 3; but when approaching or running through the streets of towns or cities, or while the train is standing still at a station the, brakeman, porter, or some other official, instead of locking the door to the toilet-room, as heretofore has been the custom, simply enters it and closes the bucket, as shown in Fig. 2, by pushing down rod U and pulling up rod Z, and then locking both rods in these positions, leaving the toilet-room open and the privy accessible to all who may desire its use under circumstances when otherwise its use (so imperative at times, especially to invalids, ladies, and children) would be denied. When the train starts again and reaches the open country, the porter or other functionary invested with this duty simply enters the room and by unlocking and operating the rods U and Z, as already described, reverses and empties the bucket of its contents, the bucket being kept in this open or reversed position by relocking the rods until its use is called for again on the approach to another station.

Having thus described our improvements, we claim and desire to secure by Letters Patent of the United States—

1. The combination, with the seat-chute, of the self-ventilating stationary connection or bucket-support, comprising a central annulus and a depending casing affixed to the outside of the same, so as to leave open spaces or air-ducts in the corners of the fixed support or casing opening up around the central annulus below the car-floor, substantially as and for the purpose set forth.

2. The combination, with the seat-chute, of the self-ventilating stationary connection or bucket-support, comprising a central annulus and a depending casing affixed to the outside of the same, so as to leave open spaces or air-ducts in the corners of the fixed support or casing opening up around the central annulus below the car-floor, a movable bucket, and means, substantially as described, for opening or closing the bucket from within the room which contains the privy-seat.

3. The combination, with the seat-chute, of the self-ventilating stationary connection or bucket-support, comprising a central annu-

lus and a depending casing affixed to the outside of the same, so as to leave open spaces or air-ducts in the corners of the fixed support or casing opening up around the central annulus below the car-floor, a flushing-pipe leading into the bucket-support from a urinal or other source connecting with a water-supply, a movable bucket, and the described mechanism for operating the same, substantially as set forth.

4. The combination of the stationary bucket-support, the movable bucket hinged to one side of the same and having a catch on the opposite side, the vertically-sliding rod adapted to interlock with said catch at its lower end, the fixed slotted bearing bolted to and depending from the under side of the car, the slide working in said bearing, the rod connecting said slide pivotally with the movable bucket, the vertical operating-rod connected

at its lower end to the slide and projecting with its upper end through the floor, and suitable locking devices for fastening the two vertically-sliding rods in respectively their up and down positions, all constructed and combined to operate substantially in the manner and for the purpose shown and set forth.

In testimony that we claim the foregoing as our own we have hereunto affixed our signatures in presence of two witnesses.

WILLIAM J. WHARTON.
JOHN T. NALLS.

Witnesses to the signature of William J. Wharton:

R. H. MARKS,
A. L. VANN.

Witnesses to the signature of John T. Nalls:

MARCUS L. BYNG,
BENNETT S. JONES.