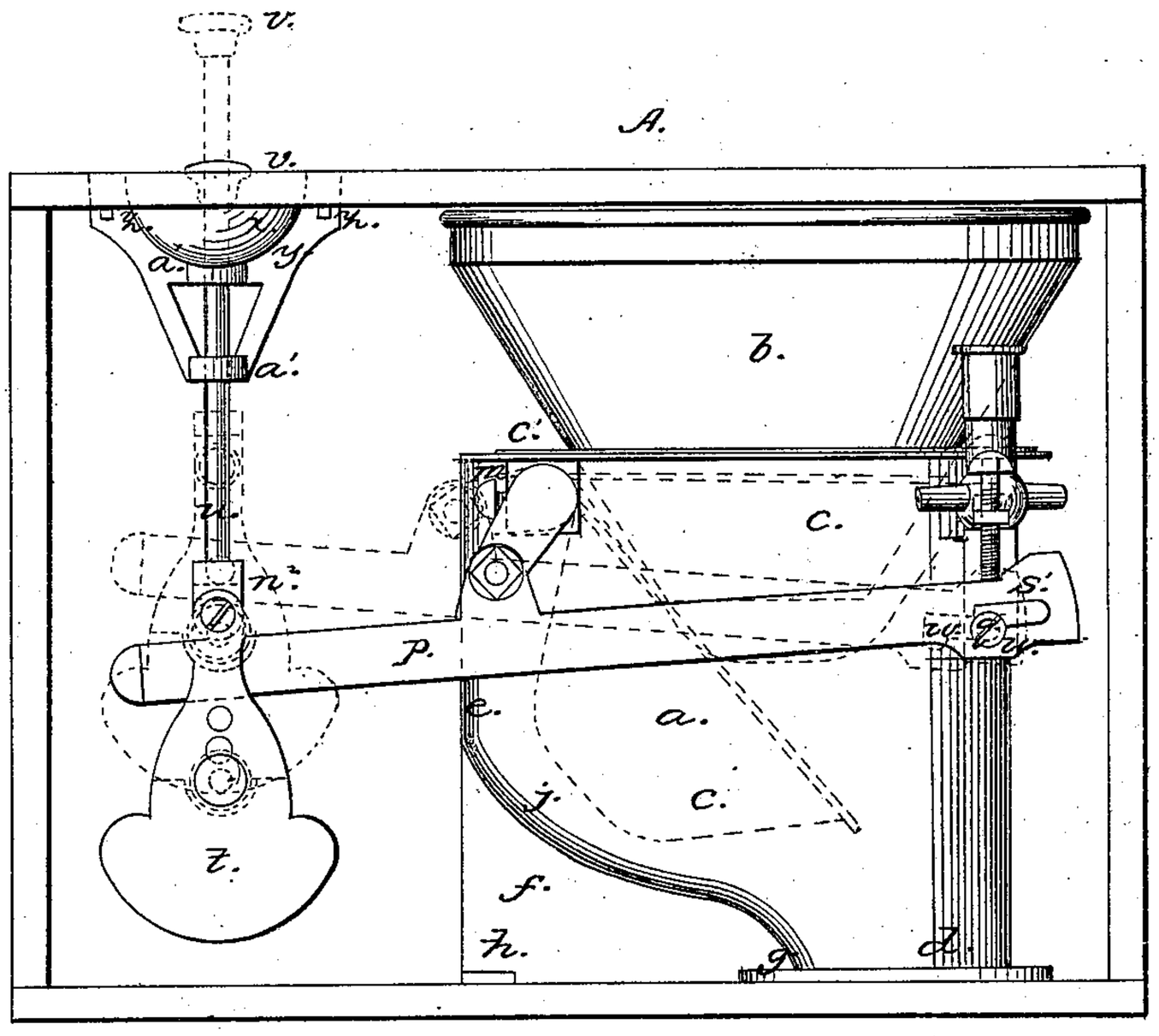
D. Wellington,

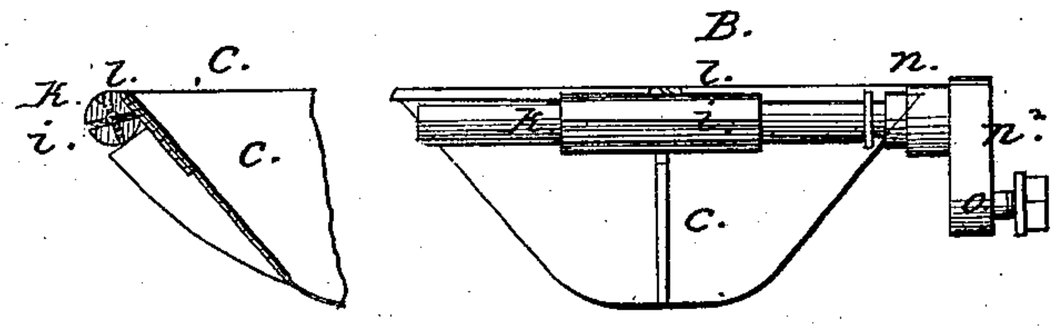
Water Closet.

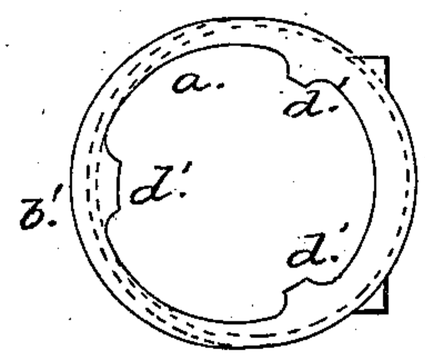
No. 85,192. Patented Dec. 22, 1868.

A.



B.





Witnesses:

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UNITED STATES PATENT OFFICE.

DARIUS WELLINGTON, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN WATER-CLOSETS.

Specification forming part of Letters Patent No. **85,192**, dated December 22, 1868.

To all whom it may concern:

Be it known that I, DARIUS WELLINGTON, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Water-Closets; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

My present invention relates to the construction of pan water-closets, with particular reference to supporting the pan in such manner, when closed, that it cannot break down by its weight, or by being thrown against the hopper above it.

My improvement consists, primarily, in jointing the rocker or crank-arm of the pan-supporting shaft to a loose lever, made capable of endwise movement, and running loosely through a slot in the weight that operates the lever, (this weight being suspended from the vertical hand-rod which tips down the pan,) and the opposite end of the lever being fulcrumed upon a stationary pin, which passes through an oblong fulcrum-slot in the lever, this slot having a vertical locking-slot opening out of it, into which the pin slips when the pan closes, the lever being thus locked in position, or from end movement, and thereby locking the pan-shaft and pan in position.

The drawing represents, in side elevation, at A a water-closet embodying my improvements. B shows a view of the pan and its shaft. C is a section of the shaft and adjacent edge of the pan. *a* denotes the receiver, upon which the hopper *b* is mounted, and *c* is the pan.

The container *a* is peculiar in shape. It is made nearly or quite vertical at one end, and has the soil-pipe neck *d* opening out from this end, as seen at A, and from this neck the receiver slants upward to the opposite side, terminating in a vertical wall, *e*, (its shape being something like a vessel-stern,) and a keel-shaped support, *f*, extending centrally down from the inclined bottom to the plane of the flange *g*, straps *h* from this keel being screwed upon the floor with the flange *g*. This keel-shaped support *f* forms a web, which is directly joined all along its inner side or edge, from top to bottom, to the receiver. It is thus free from the danger of breakage and other damage, especially during the packing and transportation, which is incident to a mere leg or post support, the latter being easily broken by a blow either toward the receiver or from it, or at either side, by reason of its long leverage, and, if cast with the receiver, such blow is also likely to break the receiver itself. My keel also affords a solid and sure protection when the whole apparatus is in use.

The stern-shaped part *j* serves to receive the pan when it is tipped, as seen in dotted red lines at A, and by leading the pipe down from one side, and making the bulbous part *j* beyond the vertical plane of the pipe, the pan, without tipping down into vertical position, passes beyond the neck *d* and empties its contents into the soil-pipe, thus saving in amount of movement of the pan and in force necessary to bring the pan into horizontal position.

At the hinged side of the pan it has a tongue, *i*, which fits into a slot, *k*, made through the shaft, a screw, *l*, securing the tongue within the slot, the connection being thus much stronger, and the shaft and pan being readily detachable. The shaft extends through the side of the receiver, and is journaled in bearings therein.

To connect the pan and shaft the shaft is first run through the receiver, and is confined from end movement by a stationary screw, *m*, which enters a slot, *n*, in the shaft. The tongue *i* is then slid into the slot *k*, (the pan being held from the top of the receiver,) and is there confined by a screw, *l*.

Upon the end of the shaft is fixed an arm, n^2, to a pin, *o*, projecting from which is jointed a lever, *p*. This lever is hung upon a stationary fulcrum-pin, *q;* but the fulcrumed end of the lever has a fulcrum-slot, *s*, which permits free end movement of the lever within limits bounded by the opposite ends of the slot.

The shaft-arm n^2 is inclined toward the opposite end of the lever, so that by raising the lever the arm will always be elevated, and by such elevation will tip down the pan, the lever moving endwise to accommodate itself to the rotative movement of the arm n^2.

The free or reciprocating end of the lever passes through a slot in a weight, *t*, through which slot the lever slides freely, and this weight is suspended from the vertical rod *u*,

at the top of which is the ordinary handle *v*, for operating the pan.

The weight *t* is hung and swings loosely upon the bottom of the rod, and the lever runs loosely through the weight, and thus the relative movements of the lever and rod are effected with great freedom.

As the handle *v* is raised the shaft-arm is turned and the pan tipped down, in which movement the lever slips endwise through the weight-slot at one end and upon the fulcrum-pin at the opposite end.

At the front end of the fulcrum-slot is a vertical slot, *w*, opening down from slot *s*, and when the handle is released the weight *t* carries down the lever and closes the pan, the lever slipping back through the slot in the weight and upon the fulcrum-pin *q*, and as the end of the fulcrum-slot strikes the pin *q* and the pan comes to a stop, the pin *o* becomes the lever-fulcrum, and the weight tips the lever upon the same and throws the slotted end of the lever up, the pin *q* entering the vertical slot *w*. In this position the lever is locked from end movement, and cannot be moved endwise excepting by first tipping the lever, Now, as no strain can come upon the slotted end of the lever to force it down, (for the arm cannot turn under weight of the pan without moving the lever endwise,) it will be seen that the pan is securely locked in position, and that its weight is maintained by the fulcrum-pin *q*, (through the lever *p*,) the pan being only capable of movement by raising the front end of the lever *p* and depressing its rear end to carry pin *q* out of slot *w*, so that lever *p* may work endwise upon such pin.

The cup *x* is placed in a stirrup-frame, *y*, which projects through the seat-board, this stirrup having slots *z*, through which keys are inserted to secure the cup to the board, the rod passing through the center of the cup and down through bearings *a'* in the stirrup-frame. This means of applying the cup is very simple, dispensing with the use of screws and enabling the cup to be readily fastened to any thickness of seat-board, while the bearings in the lower part of the stirrup steady the rod in its movements.

The receiver *a* I cast with an outwardly-projecting flange, *b'*, for supporting the flange *c'* of the bowl; and integral with the receiver, and projecting inward from the rim, I also cast finger *d'*, as seen at D, which shows a plan of the receiver, these fingers serving as stops for the pan, to prevent its being thrown up too high.

The preponderance of weight forward, due to the arrangement of lever *p* and its weight and connections, renders the more necessary the heel *f*.

I claim—

1. In combination with the pan, the tongue *i*, entering the slot of the shaft *n* after the shaft is thrust through the receiver and confined in said slot and to the shaft by a screw, *l*, substantially as described.

2. I also claim, for operating the pan, a lever having an end movement by means of the fulcrum-slot, and also having the locking-slot, by means of which, by locking the pan-shaft from rotative movement, the pan is locked from tipping movement, substantially as described.

3. I also claim the weight hung loosely to the rod *u*, and slotted to allow the lever *p* to run loosely through it, substantially as described.

4. I also claim, in combination with the cup, the stirrup-frame, provided with key-slots, substantially as shown and described.

5. I also claim the receiver *a*, with an outwardly-projecting flange, *b'*, and inwardly-projecting fingers *d'*, substantially as shown and described.

DARIUS WELLINGTON.

Witnesses:

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