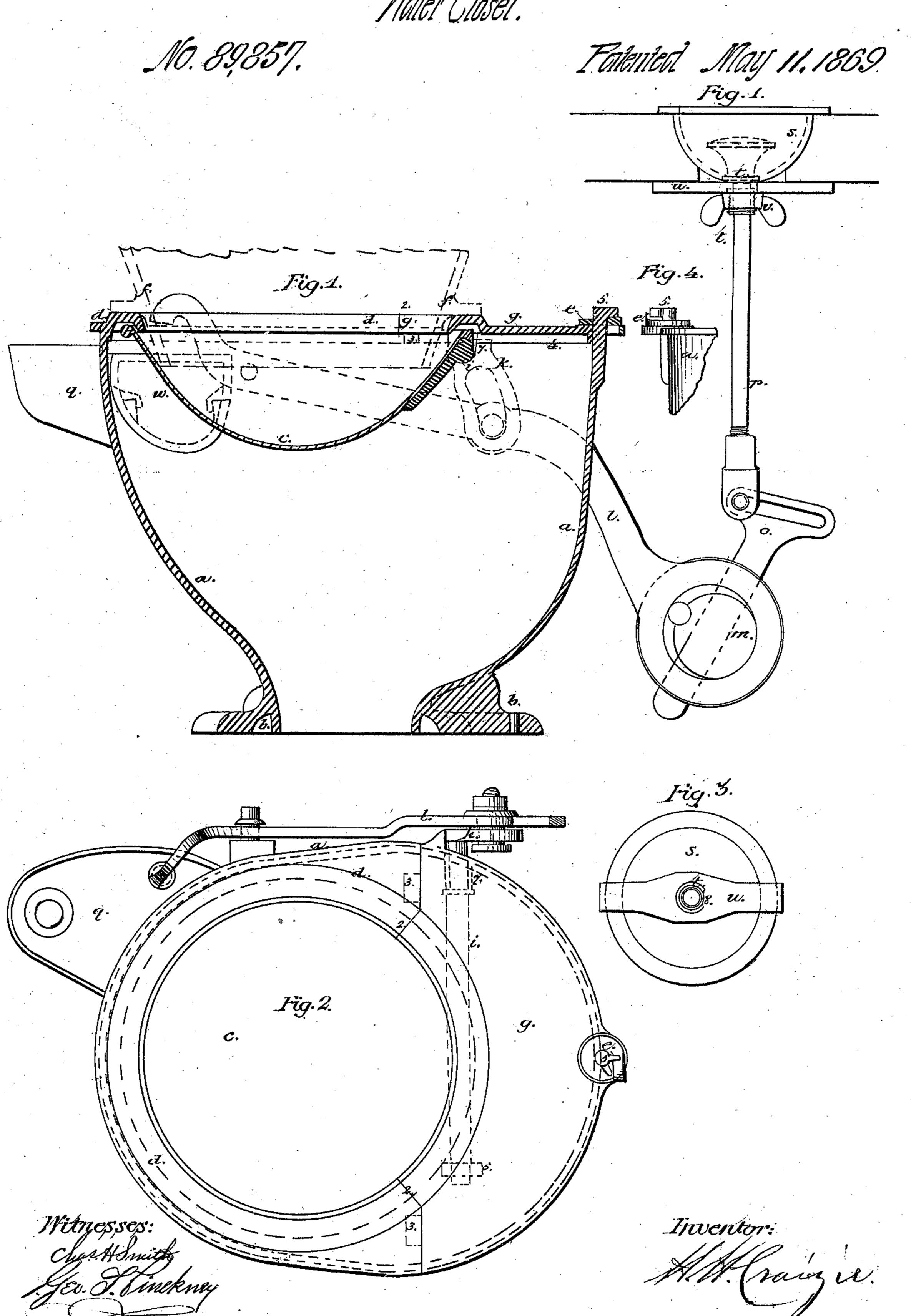
H. St. Chille,
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Anited States Patent Office.

HUGH H. CRAIGIE, OF NEW YORK, N. Y.

Letters Patent No. 89,857, dated May 11, 1869.

IMPROVEMENT IN WATER-CLOSETS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, HUGH H. CRAIGIE, of the city and State of New York, have invented and made a certain new and useful Improvement in Water-Closets; and I do hereby declare the following to be a full, clear, and exact description of the said invention, reference being had to the annexed drawing, making part of this specification, wherein—

Figure 1 is a vertical section of said improved water-

closet.

Figure 2 is a plan of the same.

Figure 3 is an inverted plan of the bridge, for securing the socket of the pull.

Figure 4 is a side view of the inclined clampingwasher.

Similar marks of reference denote the same parts.

The object of this invention is to provide a means for introducing or withdrawing the pan from the hopper, and, at the same time, have but a small extent of joints to pack and render tight, by means of putty.

I also attach the socket for the pull, by means of a screw-thimble, nut, and bridge, so that the socket will be firmly drawn down to its place, without having to be rotated, as heretofore usual in screwing the socket down.

In the drawing—

a is the hopper, rising above the flange b, and made of a shape to receive the pan c, so that it may swing, to empty the contents, or be closed up against the under side of the flange d, and around the lower end of the basin f, shown by red lines, fig. 1.

The flange d is made as one piece, cast with the hopper a, so that there is no joint between it and the

hopper a.

The removable cover g unites at the joint 2 with the flange d, forming part of the seat, or support for the

basin f.

Upon the under side of this cover g, lugs are provided at 3 3, (see dotted lines, fig. 2,) that pass under the edge of the flange d, to hold down the cover at these points, and there is also a downward flange, 4, sitting within the hopper a, to aid in retaining the putty that is introduced to make the joint tight, and upon the hopper a is a stud, 5, with an overhanging, or hooked end.

The cover g sits down over this stud, and the parts are clamped together by an inclined-plane washer, e, that sits over the stud, and is partially revolved, so that its inclined plane, acting under the hooked end of the stud 5, shall press the plate, or cover g to its place, but allow of the easy removal of the parts, when desired.

This stud 5 may be made separate from the hopper a, and hook under studs thereon, instead of being east with said hopper a.

The pan c is set on an axis, i, formed in one piece with the cam-arm k, and securely soldered, or brazed to the pan c.

This axis i is supported, at one end, in the bearinglug 6, on the under side of the cover g, (see dotted lines, fig. 2,) and the other bearing for this axis i is at 7, in boxes, formed, half in the cover g, and the other half in the hopper a.

By this construction, the pan c can be taken out, for repair, or replaced with great facility, when the earthen basin f is not resting upon the flange d and cover g, it being understood that the axis of the pan cis placed in its bearings on the under side of q, and then introduced into the hopper a, as the cover g is brought down to its place.

This construction of these parts is strong and cheap, and great facility is given for fitting the parts to-

gether.

The lever l, weight m, link o, pull p, and projection q, on the side of the hopper a, are not herein claimed, as they have heretofore been set forth in applications for Letters Patent made by me.

In order to attach the socket, or basin s for the pull p, I make use of a thimble, t, that is separate from the socket, and has a flange around its upper end. (See dotted lines, fig. 1.)

This thimble passes through the hole in the socket s, and may be of any desired length to suit the thick-

ness of the wood-work.

The screw of the thimble t is filed away on one side, as seen at 8, fig. 3, and over this is placed the bridge u, the hole in which is shaped to correspond, so that the flattened side of this thimble in the bridge shall prevent the thimble turning, as the nut v is screwed upon the said thimble, to draw that down and bind firmly the socket s to the wood-work.

The thimble t may have more than one flattened side, or be otherwise fitted so as not to revolve in the

bridge u.

I make the hollow projection q, and its top, on which the valve is to rest, in one piece, cast with the hopper a, and I cover the opening from said projection into the hopper, by a removable plate, w, (see fig. 1,) that is held by lugs, and prevents paper or other material getting into the hollow projection q.

What I claim, and desire to secure by Letters Pat-

ent, is—

1. The movable cover g, forming a portion of the support for the basin, in combination with the flange d, formed as a part of the hopper a, and constituting the other portion of the support for the basin, substantially as set forth.

2. The bearing-lug 6 on the under side of the cover g, and the divided bearings at 7, in combination with the axis i, pan c, and arm k, as and for the purposes

set forth.

- 3. The screw-thimble t, formed as specified, in combination with the bridge u and socket s, substantially as set forth.
- 4. The inclined-plane washer e, combined with the hooked stud 5, as and for the purposes specified.

5. The cover w, applied to the inner end of the hollow projection q, for the purposes set forth.

In witness whereof, I have hereunto set my signature, this 11th day of December, 1868.

H. H. CRAIGIE.

Witnesses:

CHAS. H. SMITH, GEO. T. PINCKNEY.