

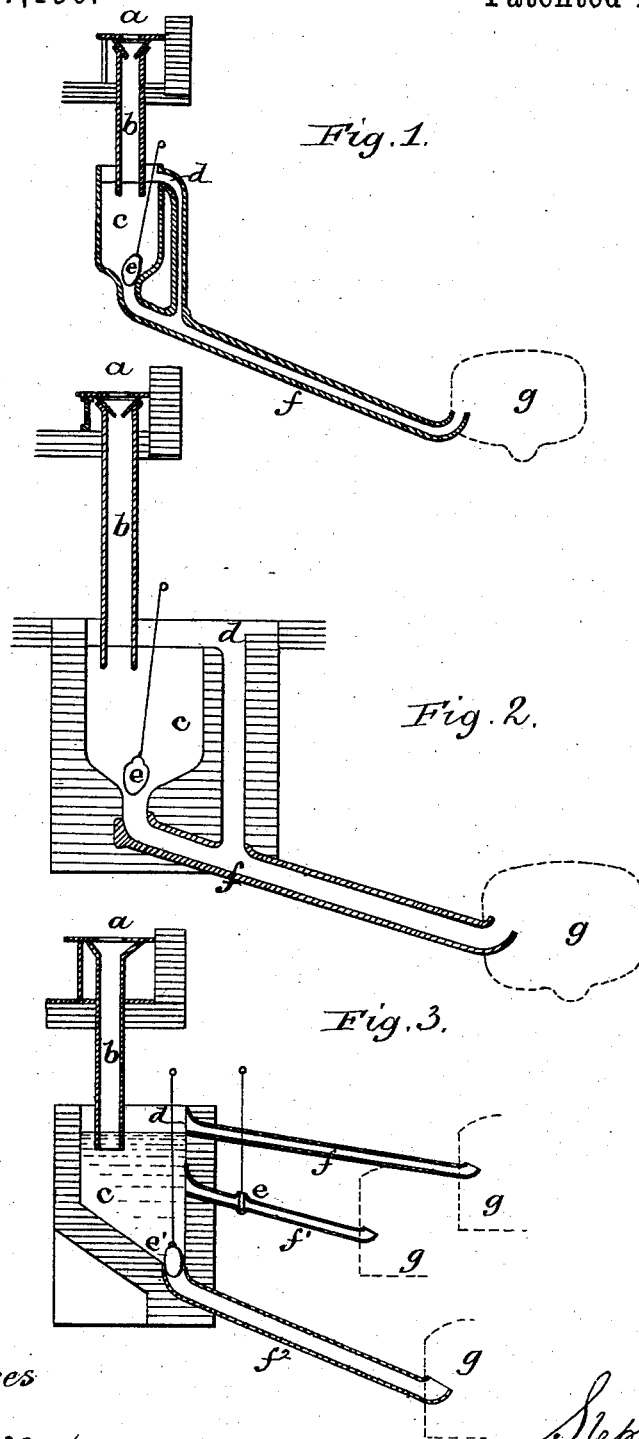
(No Model.)

S. GOLDNER.

WATER CLOSET.

No. 267,190.

Patented Nov. 7, 1882.



Witnesses

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# UNITED STATES PATENT OFFICE.

STEPHEN GOLDNER, OF BADEN, GERMANY.

## WATER-CLOSET.

SPECIFICATION forming part of Letters Patent No. 267,190, dated November 7, 1882.

Application filed August 24, 1882. (No model.) Patented in Germany June 26, 1881, in France July 16, 1881, in Belgium October 14, 1881, in Great Britain October 20, 1881, in Spain November 9, 1881, in Italy November 12, 1881, and in Austria-Hungary January 15, 1882.

*To all whom it may concern:*

Be it known that I, STEPHEN GOLDNER, a subject of the Queen of Great Britain, and a resident of Baden, in the Empire of Germany, have invented certain new and useful Improvements in the Construction of Water-Closets, whereof the following specification is a full description.

The present invention has reference to the construction of water-closets for use in houses, and has for its object to render such closets perfectly inodorous, preventing the return to the house through the soil-pipe of noxious and infectious odors.

It has for a further object to effect the removal of the excrements from houses or towns to convenient distances without permitting any fermentation to take place, thereby preserving in the said excrements all their manurial properties, partly separating, if desired, the liquid matter from the solid.

In the present invention the soil-pipe descends from the seat of the closet into a reservoir or chamber filled to the brim or overflow with water, and dips from five to fifteen centimeters below the surface of the water, so that the quantity of excrement descending through the soil-pipe below the surface of the water, as above, displaces the same quantity of inodorable water, which passes off by the overflow-pipe. That portion of the excrement which is lighter than water floats upon the surface and is carried off by the overflow. The heavier portion sinks to the bottom of the reservoir or chamber and is completely covered with water, whereby fermentation is prevented. The entire contents of the chamber or receiver may be discharged at suitable intervals by opening the valve at the mouth of the discharge-pipe.

The invention will be the better understood by reference to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a vertical section of a closet apparatus constructed in accordance with the invention; Fig. 2, a similar view, showing a portion of the closet apparatus constructed of brick-work; and Fig. 3 a similar view of a somewhat modified form of apparatus.

Referring to Figs. 1 and 2, *a* is the seat of the closet; *b*, the soil-pipe, descending into a chamber or reservoir, *c*, which is filled with water to the level of the overflow *d* at the side of the chamber. The water is arranged to stand at such a level as to cover the lower end of the soil-pipe *b* to a depth of from five to fifteen centimeters, and thus hermetically seal it. In the bottom of chamber *c* is an opening, which is closed by a tightly-fitting stopper or valve, *e*, and when this is removed from its seat by a rod or cord the entire contents of the chamber are discharged through the conduit *f*, leading to a sewer, drain, or cesspool, *g*, or to any other suitable outlet. The conduit *f* receives also the matters which overflow through pipe *d*. It will be understood that the excrement discharged into the chamber *c* that floats upon the water will escape by the overflow-pipe *d*, while the hermetical joint formed by the soil-pipe *b*, dipping into the water in the chamber *c*, prevents the entrance of gases into the water-closet, or into the soil-pipe. The lower end of the soil-pipe being thus closed, the ventilation of the pipe into the house by any ascending column of air is prevented. The heavier portion of the excrement, which falls to the bottom of the reservoir, is covered by a volume of water, whereby fermentation is stayed for a considerable time. At desired intervals the stopper or valve *e* may be drawn away from its seat. The whole contents of chamber *c* are thus rapidly discharged through pipe *f*, carrying away any matter which may have previously lodged therein. The stopper or valve is then allowed to fall to its seat, and the chamber *c* again filled with water to the top of overflow *d*.

In Fig. 3, *b* is the soil-pipe, as before, through which the natural discharges pass from the closet *a* to receiver *c*, filled to the brim, which takes the place of the usual cesspool, and the pipe or tube passes into the said receiver to the depth of from five to ten centimeters, so that the objects discharged sink in the water in such a way that the upper body of water above the lower orifice of the pipe or tube remains untainted, and is thus preserved from bad smells, so that the spreading of odors is prevented. With this arrangement the addi-

tional volume of the excrements passes off at *d*, out of the receiver *c*, without smell, in an equal quantity, either over the edge of the receiver *c* or through a trough or tube fitted at *d*.

5 The outlet *f'*, leading from the receiver, is normally closed by a valve, *e*, upon opening which the contents of the receiver above the level of the pipe *f* will be discharged. The heavier portions of the excrement will have  
10 fallen below this level in receiver *c*, and can be discharged through conduit *f*<sup>2</sup> by opening valve *e'*, and conducted to any distance from houses or towns to a reservoir provided for the purpose. The end of the pipe or tube *g* should  
15 also be covered with some kind of fluid in order to prevent odors being carried back by circulation of air.

Hitherto it has been possible, by the aid of siphons, valves, and ventilation above or below, to keep a portion of the house tolerably  
20 free from odoriferous gases; but the advantage of the present invention is that it does away with the evils of cesspools and leaves no time for the excrements to ferment in houses  
25 or towns, and at the same time effects the removal of the matter to any desired distance, with its manurial properties unimpaired.

Having now fully described my said invention and the manner of carrying the same into  
30 effect, what I claim is—

1. The combination, with the receiver or reservoir provided with overflow and discharge pipes, the latter connected with said receiver at the bottom, of the soil-pipe dipping into said receiver or reservoir a suitable distance,  
35 as indicated, below the mouth of said overflow-pipe, substantially as described.

2. The combination of the receiver adapted to contain a volume of water, the soil-pipe projecting below the level of the water therein to  
40 about the depth indicated, the overflow-pipe at the top of said receiver, and the discharge-pipe at the bottom thereof, normally closed by a valve or stopper, substantially as described.

3. The combination of the receiver, the soil-  
45 pipe projecting thereinto, the discharge normally closed by a valve or stopper, and the overflow connected with the receiver at a point above the lower orifice of said soil-pipe and emptying into the discharge-pipe beyond said  
50 valve or stopper, substantially as described.

In testimony whereof I have signed my name to this specification before two subscribing witnesses.

S. GOLDNER.

Witnesses:

A. POLLOK,

EDWARD M. SMITH.