J. BARRETT.

Water-Trap for Sinks, &c.

No. 207,938. Patented Sept. 10, 1878.

FIG. 1

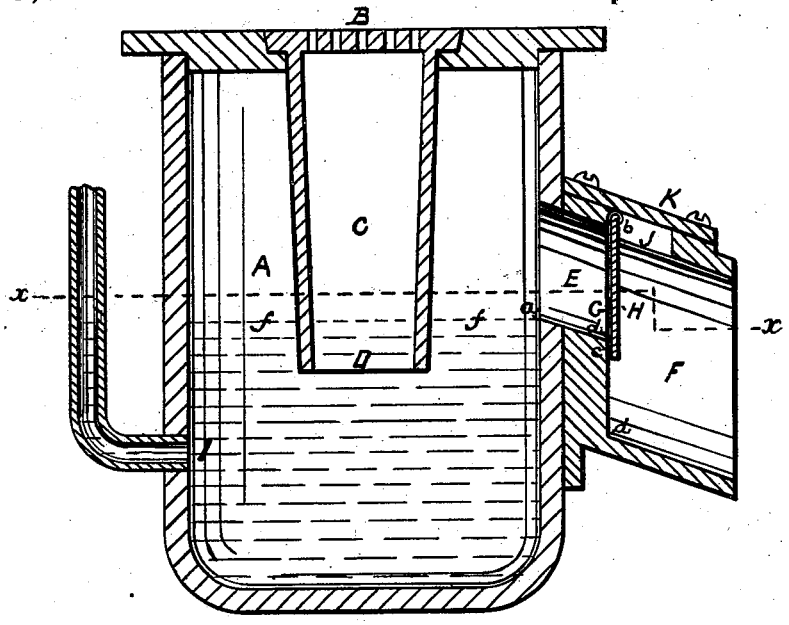


FIG. 2.

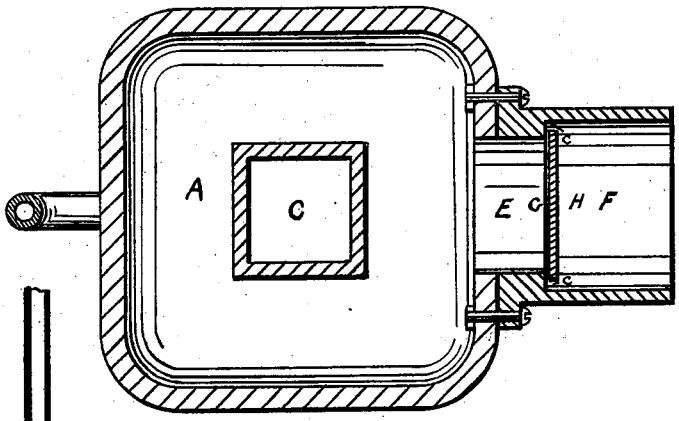


FIG. 3.

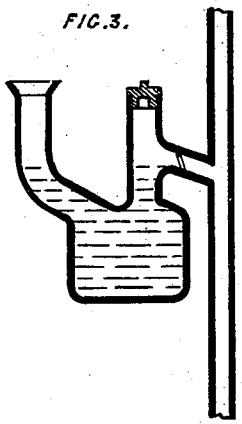


FIG. 4.

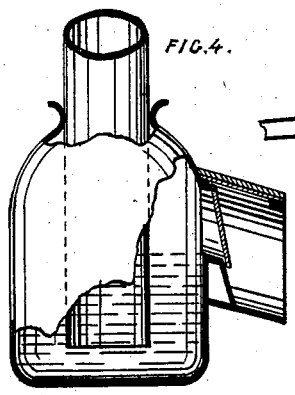
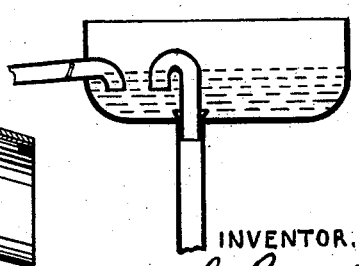


FIG. 5.



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JAMES BARRETT, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN WATER-TRAPS FOR SINKS, &c.

Specification forming part of Letters Patent No. **207,938**, dated September 10, 1878; application filed February 13, 1878.

To all whom it may concern:

Be it known that I, JAMES BARRETT, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improved Water-Trap for Sinks, &c., of which the following is a specification:

This invention relates to the traps of sinks, wash-basins, urinals, water-closets, cess-pools, and similar appliances of dwellings and other houses; and it consists in the combination, with the eduction-pipe of such an appliance, of an enlarged chamber having an outlet above the level of its connection with said pipe and a flood-gate arranged in said outlet, whereby are combined the properties of a water-seal and a solid gate for preventing the return through or into said trap of either gas or solid matter; and it consists, further, in the combination, with the basin and other named elements, of a tube extending downward from the top of said basin and terminating below the water-line thereof, giving access thereto for the purpose of cleaning out, but not permitting the escape of sewer-gas and foul air upward through said basin when the gate in the outlet is open.

In the accompanying plate of drawings, Figure 1 is a central vertical section of my improved trap a sapplied to a cess-pool constructed with a water-trap; Fig. 2, a horizontal section on line *x x*, Fig. 1.

In the drawings, A represents a cess-pool basin, having a strainer, B, which is at one end of a spout, C, that projects into the basin A, and has its open inner end, D, below the plane of the extreme lower side, *a*, of a passage, E, which leads from one side of the basin A, and connects it by a pipe, F, either directly or indirectly with a pipe of the system of sewerage belonging to the place where the cess-pool is located.

At the end G of the passage E opening to the pipe F there is a gate, H, which is hung at its upper edge, *b*, so as to freely swing, and when in a depending position to lie closely against and overlap the wall or face *c* of said end G about the passage E, and at this end opening G in the pipe F there is a fall or drop, represented by the distance from *d* to *d*, Fig. 1, for the water and waste matter passing through the passage E to drop or fall below and away from the gate H as it escapes at the end thereof into the pipe F.

The cess-pool basin A, as is shown at 1, is tapped below the water-line *f* of the water-trap for the entrance of a waste-pipe, which may lead from a sink, urinal, or other place, and this tapping of the cess-pool basin may be more or less, as may be desired.

This improved trap obviously secures the escape of the waste water and material, and, in addition to its trap against smell by water, it is also further so trapped by the closing of the gate H against the end wall *c* of the escape-passage E.

The fall or drop *d*, for the refuse matter, &c., passing through the gate H, places it at once out of the plane of swing or movement of the gate, which prevents all possibility of its obstructing the closing of the gate, and again the gate operates independently and entirely outside of the operation of the water-trap proper.

In addition to the above-described construction of my improved trap, I construct the pipe F with an opening, J, closed by a cover, K, fastened in place by screws, and its seam or joint packed in any suitable manner. This opening J is at the plane of operation of the gate H, and enables the gate to be got at for inspection or other reason. Again, the passage E from the water-trap basin A to the pipe F downwardly inclines, which helps to throw the waste material still farther forward in the pipe F beyond the plane of movement of the gate, and in order that the gate shall be free from the back-pressure of the sewage-water therein the pipe F is inclined or otherwise made for a flow of the water below the plane of the gate.

From the above description of my improved trap it is plain, first, that a double trapping is obtained, each working independently and separately from the other; second, that it is simple and durable in construction, and applicable to all places desired to be trapped; third, that it is an absolute preventive against the escape of gases or the backward forcing of the sewage-water, and against the siphoning of the water-trap; fourth, it is readily accessible for being examined or cleansed, and its gate entirely free from danger of obstruction.

Fig. 3 shows a modified form of my improved trap, which may be used in connection with a wash-bowl or sink, or water-closet bowl, &c.

Fig. 4 shows still another modified form of my trap, and adapted for all uses.

Fig. 5 illustrates my trap in connection with a sink in which water is allowed to stand, the water in the sink making the water-trap.

In addition to the water and gate trap, there is a stand-pipe set in the outlet-hole of the sink, which stand-pipe is also water-trapped, and thus preventing the passage of sewer-gas, &c., through it into the room. This arrangement of parts is especially serviceable in kitchens of restaurants, hotels, and other places where any considerable amount of cooking, &c., is done.

Having now described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination, with the eduction-pipe of a wash-basin, sink, water-closet, or similar article, of an enlarged chamber, having an outlet-pipe leading from a point above the level of the connection of the chamber and said eduction-pipe, and a gravity flood-gate arranged in said outlet-pipe, and adapted to open outward only, substantially as and for the purpose set forth.

2. The combination, with the basin or chamber A, its outlet and inlet pipes, of the tube C, extending downward from the top of said chamber, and terminating below the water-line thereof, substantially as and for the purpose set forth.

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