

(No Model.)

C. B. TOMPKINS.
DRY CLOSET.

No. 482,987.

Patented Sept. 20, 1892.

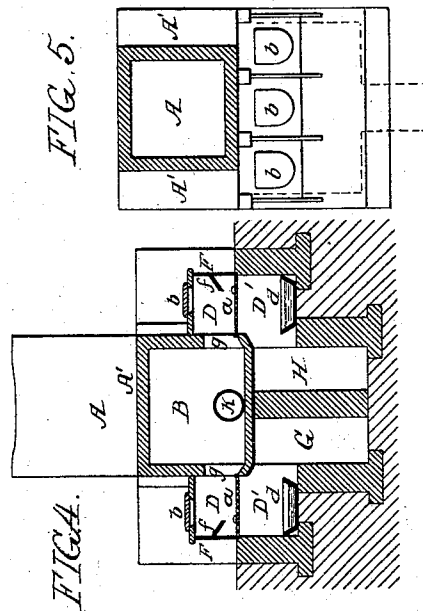
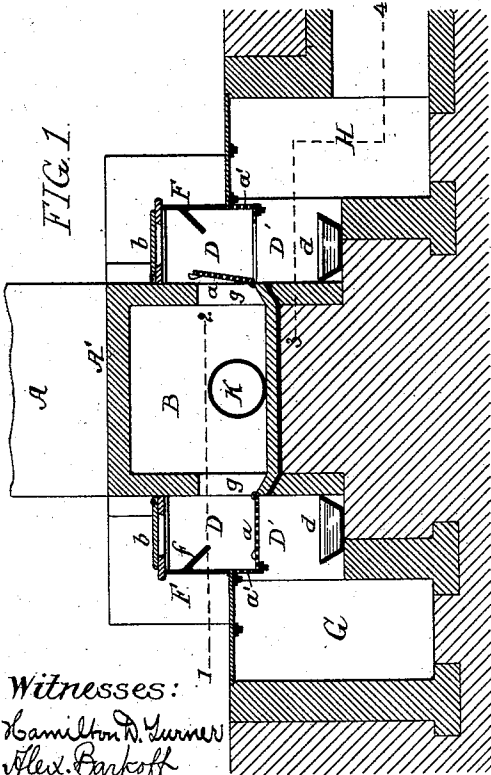
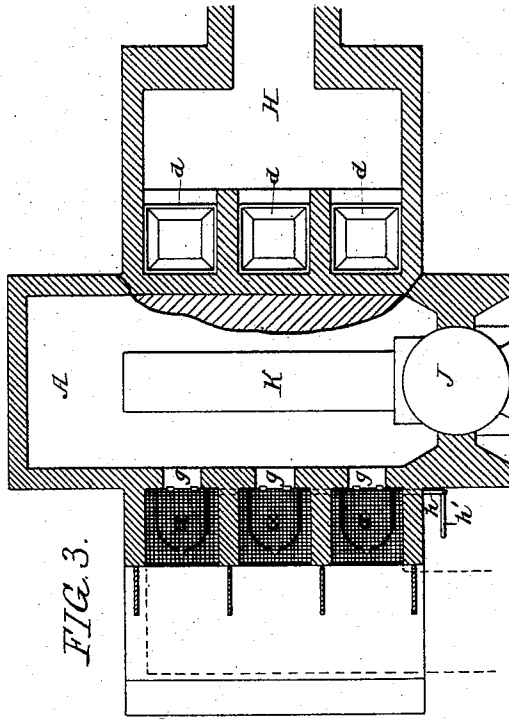
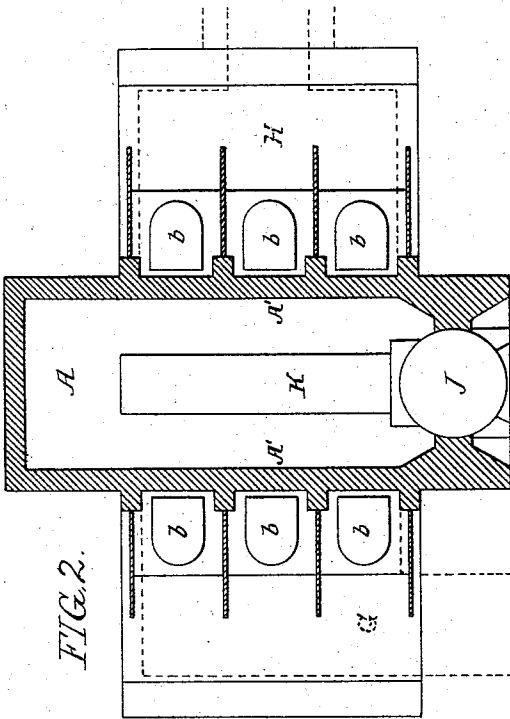


FIG. 5.

FIG. 4.

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CORNELIUS B. TOMPKINS, OF ELMIRA, NEW YORK, ASSIGNOR TO HIMSELF
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PLACE.

DRY CLOSET.

SPECIFICATION forming part of Letters Patent No. 482,987, dated September 20, 1892.

Application filed June 27, 1891. Serial No. 397,708. (No model.)

To all whom it may concern:

Be it known that I, CORNELIUS B. TOMPKINS, a citizen of the United States, and a resident of Elmira, New York, have invented certain Improvements in Dry Closets, of which the following is a specification.

The object of my invention is to so construct a dry closet as to provide simple and efficient means for the rapid and effective drying or desiccation of the excrement and for the convenient disposal of the same when it has accumulated in the primary receiving-chambers to such an extent as to render its removal therefrom advisable. This object I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a transverse section of a dry-closet structure constructed in accordance with my invention. Fig. 2 is a plan view of the same with the central receiving-chamber and stack in section. Fig. 3 is a sectional plan view, partly on the line 1 2 and partly on the line 3 4, Fig. 1; and Figs. 4 and 5 are views of modified forms of structure embodying my invention.

In Figs. 1, 2, and 3, A represents a chimney-stack, which may be the ordinary chimney-stack of a building, receiving the products of combustion from the various stoves or furnaces, so as to create an upward draft therein, or it may be a special stack in which an upward draft is created by any suitable means, such as a fan-blower, but in which the draft is preferably created by means described hereinafter. At the base of this stack is an extended foot A', inclosing a chamber B, and communicating with this chamber on each side of the same is a series of lateral branch chambers separated by brick or metal walls, each of these branch chambers being divided by a wire screen or other perforated partition *a* into upper and lower portions D D', three of these lateral branch chambers on opposite sides of the projecting foot of the stack being shown in the present instance, although there may be more or less than this number, if desired. The upper portion D of each of the lateral branch chambers is inclosed at the front and top by the seat structure F, which has in the top the usual opening closed by a

lid *b*, and the lower portion *a'* of the front of the seat structure above the partition *a* is perforated, for a purpose hereinafter set forth. The lower portion D' of each of the lateral chambers is in communication with an air-supplying chamber or flue, that on one side of the chamber B being represented at G and that on the other side at H in Fig. 1. These chambers receive air either at the end, as indicated at the left-hand side at Fig. 3, or at the side, as indicated at the right-hand side of said figure, air being either drawn from the outside of the building or from the inside of the same, the latter source of supply being preferred because the air thus obtained is always more or less heated and therefore better capable of exercising the desired drying or desiccating effect. The air from the flues or passages G and H thus passes into the lower portions of the lateral chambers, thence through the perforated screens or partitions *a a'* into the upper portions of said chambers, and thence through openings *g* into the chamber B within the enlarged or projecting foot of the stack, escaping through the latter. It will be evident, therefore, that any excrement deposited upon either of the perforated screens or partitions *a* will be subjected upon all sides to the current of air directly impinging upon it, and will thus be readily dried or desiccated, all urine or other liquid discharge passing through the perforated partition and being received into a pan *d*, located in the lower portion D' of each lateral chamber, the liquid contents of the pans being evaporated by reason of exposure to the currents of air flowing through said chambers. If the partition *a* is covered throughout a large portion of its total area with excrement and paper, air will still enter through the perforated front *a'* above the partition and pass over the deposit upon the latter.

In order to insure the proper direction of the urine through the perforated partition and into the pan, the front portion of the seat structure F is, by preference, provided on the inside with an inclined deflecting-plate *f*, as shown in Fig. 2, this plate also serving to deflect the air upon the deposit upon the partition *a*. The openings *g* are contracted in area as regards the area of the lateral chambers, but

are equal in aggregate area to the area of the supply-flues, so that a steady and forcible current of air is caused to pass through each of the lateral chambers of the series, these currents being concentrated upon the deposits.

Each partition *a* is composed, in part, of a portion hinged at a point adjacent to the opening *g*, so that when the dry deposit upon the partition has accumulated to such an extent as to render its removal advisable the hinged portion of said partition may be raised, as shown at the right-hand side of Fig. 1, so as to readily discharge the deposit therefrom and into the chamber B, in which it may be allowed to accumulate. This facility for discharging deposits from the lateral chambers prevents large accumulations of excrement beneath the seats and insures the more effective desiccation of the small deposits which are permitted to accumulate in said lateral chambers. The accumulations in the chamber B may be removed from time to time through any suitable opening in the enlarged foot of the stack, or these accumulations may be set on fire and consumed, if desired, without injury to the seat structures of the closets, as there will then be no accumulations directly beneath said seat structures and the draft is away from the same.

It is advisable to locate at the outer end of the projecting foot A' of the stack a stove or furnace J, the heated air and products of combustion from which are caused to pass through the chamber B in the foot of the stack, and thus serve the double purpose of creating a draft through the stack and still further desiccating the matter discharged into the chamber B from the various lateral branch chambers in which it was first deposited. The pipe K from the furnace J is preferably carried along the bottom of the chamber B, so that the matter accumulating in said chamber will be in direct contact with said pipe, and will thus be constantly kept dry.

In Fig. 4 I have shown a modification of my invention in which the air-supplying flues or passages G and H are beneath the chamber B, and in Fig. 5 I have shown a further modification in which the enlarged foot of the stack is formed by slight projections on opposite sides of the stack and in which but a single series of lateral branch chambers and closets is employed instead of the double se-

ries shown in the other figures of the drawings. The hinged portions of the partitions *a* may be lifted by means of a hook-rod passed through the seat-opening, or the hinged portions of a series of partitions may be hung to a rock-shaft *h*, as shown in Fig. 3, and operated simultaneously by means of a lever *h'* on said shaft.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. The combination, in a dry-closet structure, of a draft-stack having at the base an enlarged foot inclosing a receiving-chamber, with lateral branch chambers receiving the deposits from the closets and communicating with said chamber, and an air-supply flue or chamber for said lateral branch chambers, substantially as specified.

2. The combination of the draft-stack having at the base an enlarged foot inclosing a receiving-chamber, lateral branch chambers receiving the deposits from the closets and communicating with said chamber, a flue or chamber for supplying air to said lateral branch chambers, and a stove or furnace discharging into or through the receiving-chamber in the enlarged foot at the base of the stack, substantially as specified.

3. The combination of the draft-stack having at the base an enlarged foot inclosing a receiving-chamber, lateral branch chambers receiving the deposits from the closets and communicating with said receiving-chamber through openings of contracted area, and an air-supply flue or chamber for said lateral branch chambers, substantially as specified.

4. The combination of the draft flue or stack having a receiving-chamber at the base, the lateral branch chambers communicating with said receiving-chamber and with an air-supplying flue or chamber, and partitions in said lateral chambers, partly horizontal and partly vertical and perforated in both portions, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CORNELIUS B. TOMPKINS.

Witnesses:

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