(No Model.)

I. D. SMEAD.

DRY CLOSET.

No. 363,971. Patented May 31, 1887.

Fig. 1.

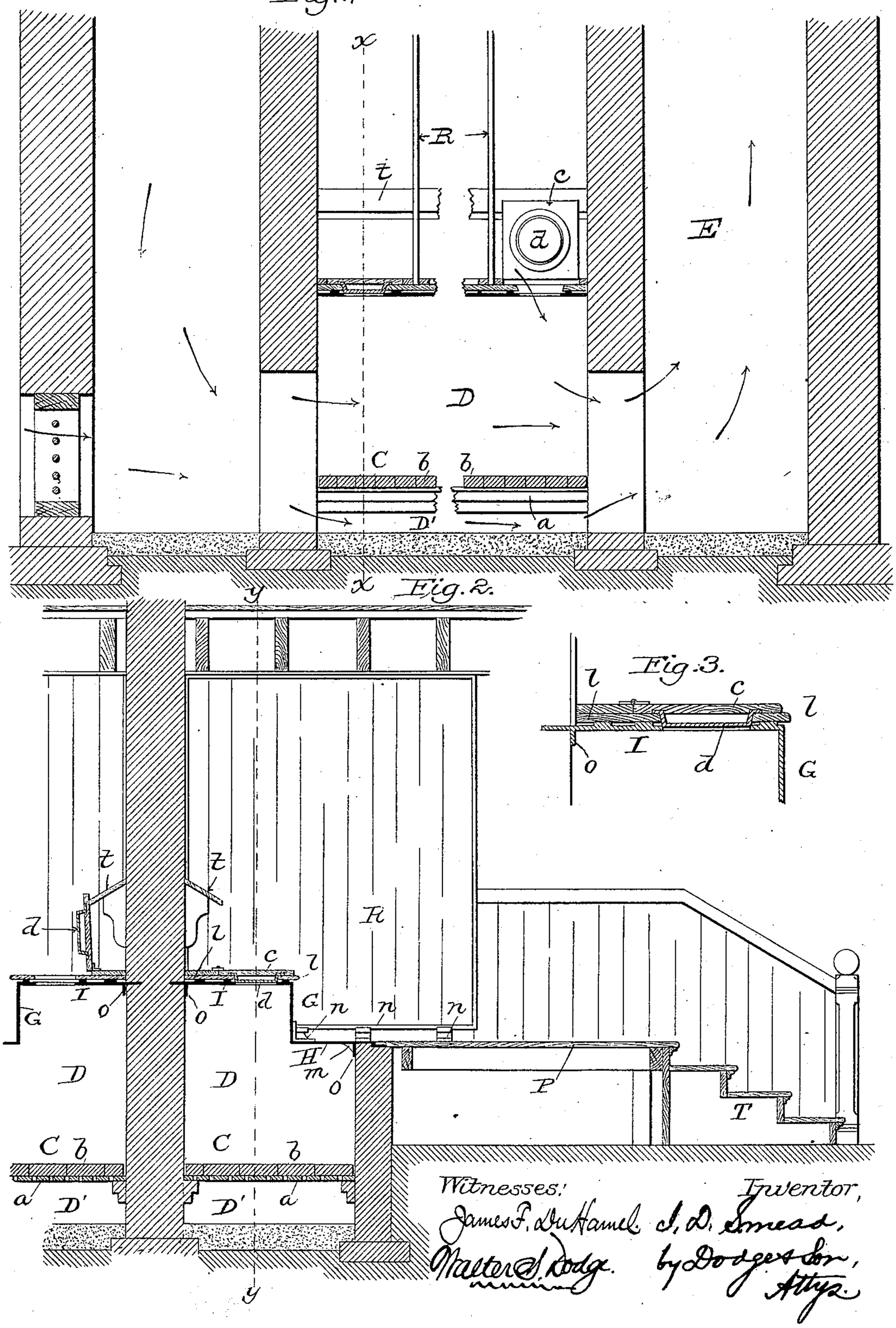

Fig. 2.

Fig. 3.

Witnesses:
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UNITED STATES PATENT OFFICE.

ISAAC D. SMEAD, OF TOLEDO, OHIO.

DRY CLOSET.

SPECIFICATION forming part of Letters Patent No. 363,971, dated May 31, 1887.

Application filed March 19, 1887. Serial No. 231,550. (No model.)

To all whom it may concern:

Be it known that I, ISAAC D. SMEAD, of Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Dry Closets, of which the following is a specification.

My present invention relates to dry closets; and the invention consists in a transverse absorbent partition located in the vault in such manner as to absorb any liquid matter, and so arranged that the current of air passing through the vault shall pass both above and below the same.

It also consists in certain improvements in the fire-proof seats and covers, all as hereinafter more fully described and claimed.

Figure 1 is a vertical section of a vault with the air inlet and outlet. Fig. 2 is a transverse vertical section of a portion of a building, showing the vault, seats, wing-partition, platform, and steps in position; and Fig. 3 is a transverse vertical section through the center of one of the seats and its lid.

This invention is an improvement in the dry closet for which Letters Patent have been heretofore granted to me. In some cases it has been found somewhat difficult to evaporate or dry out the liquid in the vault as rapidly as desired, and to remedy that is one of the objects of my present invention.

In the accompanying drawings, D represents the vaults, two being shown on opposite sides of a division-wall, as they are frequently constructed. In the lower portion of the vault D, I now arrange a transverse partition, C, which may consist of transverse bars *a*, of metal, terra-cotta, or even of wood, they being arranged at frequent intervals, with spaces intervening if of metal, or, if of other material, they being perforated, as indicated in the drawings, though this is not absolutely necessary, they being intended simply to support a layer of brick, *b*, or any similar porous or absorbent material, which will absorb the fluid matter deposited in the vault and retain the same until it is evaporated by the current of air which is drawn through the vault, as described in my prior patents. This partition or raised floor C may be made of plank, with a layer of sand, charcoal, or similar material, and be made to operate; but I prefer to use brick as the absorbent and to support them on metal bars or plates, as by that means it is rendered fire-proof, so that the deposits contained in the vault can be burned in place, as described in my Patent No. 352,157, and because, also, I find that a layer of brick thus arranged serves the purpose admirably, it being sufficient to absorb all the liquid, so that none drops to the bottom of the vault below; and the layer of brick makes a floor that can be readily cleaned off, if desired, and also enables the deposit thereon to be burned, when desired, without injury. This transverse partition, as shown in Figs. 1 and 2, is located so that there is a free space, D′, underneath it, through which the air can pass as well as above it, and the result is that the moisture or liquid which is absorbed by the brick is being constantly evaporated by the passing current of air, and all odors arising therefrom are conveyed by the current of air into the ventilating-shaft E, and from thence to the atmosphere above the building, as clearly shown and described in my prior patents, Nos. 314,884 and 352,157.

In my former patent, No. 352,157, I showed and described a construction of metallic hopper and cover with covering-plates for the vault to render them fire-proof, in which the hoppers were made to project separately from the plates on which they were supported over the vault; but instead of that plan I now construct raised seats of the usual form, but make them of metal plates G and I, arranged as shown in Fig. 2, I representing the seats proper, which are provided with the usual holes, and G forming the vertical fronts, the plate G resting on another plate, H, which forms the floor and also the cover of the front part of the vault D, as shown. These plates are firmly secured to each other by suitable angle-irons or brackets, and the joints are made tight by suitable cement when put together in a manner well known to persons skilled in the business, and which, therefore, it is not necessary to further describe.

The plates I are covered with wood, as indicated by *l*, Fig. 3, and to this are hinged lids or covers *c*, also of wood, and which have attached to their under surfaces metal plates *d*, as shown in Fig. 3, in which these plates are shown as being provided with a flange, by which they are secured to the lid *c*, and having a circular portion projecting therefrom of the proper size to shut down into the hole in the

seat and come in contact with the metal plate I below the wood. This is the form in which I prefer to apply the metal plates *d* in order to render the parts fire-proof; but it is not absolutely necessary that the plates *d* should project down into or through the hole, as I find that it is sufficient to line them with sheet metal on their under side, the small amount of flame produced by the burning of the deposits and the strong draft of the shaft E enabling them to be used with safety when constructed or protected in that manner.

It will be observed that the plates I are built into the brick wall and are provided with a flange, *o*, which rests against the inner face of the wall and helps to support them. So, too, the floor-plate H is in like manner provided with a flange, *o*, which fits against the inner face of the opposite wall, and is strengthened at intervals by brackets *m*, cast in the angle thereof, as shown in Fig. 2.

In front of the vault D a platform, P, is built on a level with the top of the same, with steps T, as shown, and between the seats wing-partitions are erected, they being supported on metal brackets *n* at their lower ends, as shown, these brackets being secured in place by screws or bolts.

To the walls above the seats I secure brackets *t*, one opposite each lid *c*, as shown in Fig. 2, these brackets serving as stops to hold the lids *c* when raised in such a position as to render them self-closing when the seats are not occupied.

By these improvements the vault proper is rendered more perfect in its operation and the accumulation of liquid matter in the bottom of the vault is entirely prevented, thus avoiding the necessity for a drain therein or therefrom. The manner of constructing the seats is also simpler and cheaper, while being equally safe and efficient.

Having now fully described my improvements, what I claim is—

1. A vault for a dry closet, having arranged therein a transverse partition or raised floor, C, composed of or having a layer of brick or similar absorbent material arranged to receive, absorb, and retain the liquid matter deposited in said vault until the same is evaporated by the current of air passing through the vault, as set forth.

2. In combination with the vault D of a dry closet, the transverse absorbent partition C, with an air-space both above and below it for the passage of air, substantially as shown and described.

In witness whereof I hereunto set my hand in the presence of two witnesses.

ISAAC D. SMEAD.

Witnesses:
W. C. DODGE,
WALTER S. DODGE.