

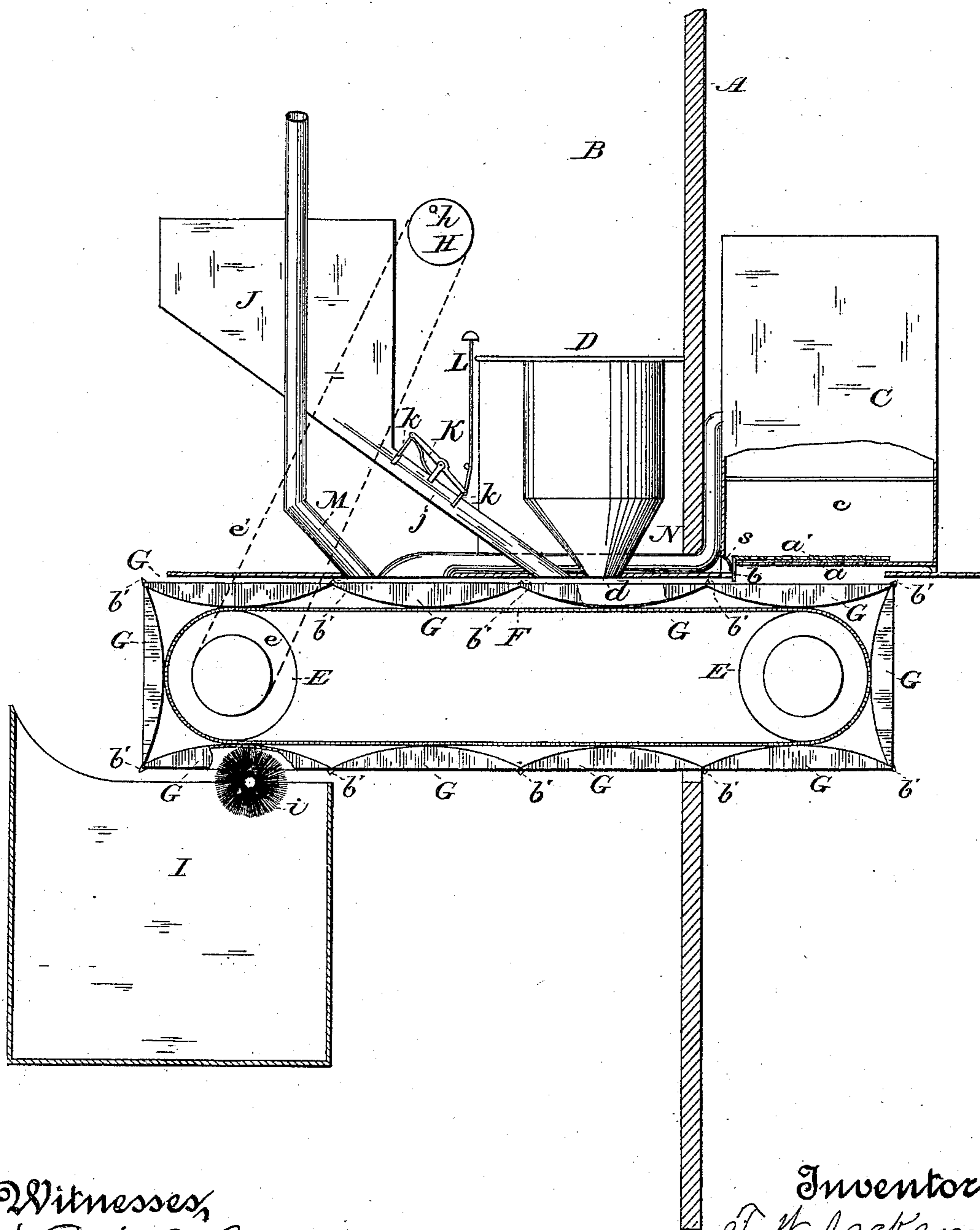
(No Model.)

T. W. JACKSON.

DRY CLOSET.

No. 299,226.

Patented May 27, 1884.



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# UNITED STATES PATENT OFFICE.

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## DRY-CLOSET.

SPECIFICATION forming part of Letters Patent No. 299,226, dated May 27, 1884.

Application filed December 17, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS W. JACKSON, of the city and county of San Francisco, and State of California, have invented an Improvement in Dry-Closets; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to that class of closets in which some auxiliary means or substance—such as heat, or sand, earth, ashes, &c.—is employed to obviate the offensiveness of human excrement.

My invention consists in a peculiar endless receptacle mounted under and adapted to receive the feces from a closet-seat, a novel means for depositing upon said receptacle, with the feces, such substances as ashes, earth, sand, &c., means for drying the contents of the receptacle and ventilating it, and a mechanism for causing the movement of the endless receptacle, whereby its contents are carried forward and discharged, all of which, together with minor details of construction, I shall hereinafter fully explain by reference to the accompanying drawings, in which the figure is a longitudinal elevation and part section of my dry-closet.

The object of my invention is to provide a convenient and effective dry-closet, the excrement from which may be discharged readily and without offense, and at the same time be valuable as a fertilizer.

A is a wall of a building, separating an apartment therein from an apartment, B, without, in which the closet apparatus is located. Within the house-apartment is a heating apparatus of some description, whether an open grate, or, as here shown, a stove, C. This stove is provided with the usual ash-pit, *c*, whose bottom, *a* in this instance, instead of being tight, is made, grate-like, of spaced bars. Over this lies a similar grate-plate, *a'*, adapted to slide thereon, so that by its movement it will close and open the bottom, whereby a portion of the ashes may be precipitated when desirable. The means for operating the sliding grate I shall presently explain. Within the outer apartment, B, is a regular closet-seat, D, the discharge *d* of which extends through the floor of the apartment. Under the floors of both apartments are the drums E, over which passes an endless flexible belt, F, constructed of suitable material, metal or

leather or other substance. Upon this belt, at intervals, are secured the pans or receptacles G, preferably constructed of galvanized sheet-iron, and secured by their centers to the belt to permit its revolution. These pans pass successively under the ash-pit of the stove and under the discharge of the closet when the belt is caused to move forward. The sliding grate *a'* of the stove has a downwardly-projecting arm, *b*, with which a raised portion or cam, *b'*, on the forward end or edge of each pan, is adapted to come in contact in the movement of the belt. This contact is but momentary before the parts slip past each other, but it is sufficient to cause the sliding of the grate *a'* to uncover the grate *a* and allow some of the ashes to fall into the pan below. A spring, *s*, impinges against the sliding grate and forces it back to close the stationary grate when the pan relieves it.

Upon one of the drums E is a pulley, *e*, from which a belt, *e'*, extends to a pulley, H, having a crank-pin, *h*. This pulley and its crank is in convenient proximity to one occupying the closet, who, by turning it, causes the advancement of the belt to carry that pan which was before under the closet forward, and to bring that pan which was under the ash-pit into position under the discharge end of the closet. By a proper calculation of the diameters of the pulleys the movement of the belt may be rendered accurate. For example, a single revolution of the crank-pulley may be sufficient to cause the advance of a pan one position—that is, from under the ash-pit to under the closet.

In the operation of the device the occupant of the closet departing should turn the crank-wheel and cause the pan which had been used to move forward, and the succeeding pan which had received its ashes from the stove to advance to position ready for next occupant. Where the pans follow with the belt around the outermost drum, they discharge their contents into a receptacle, I, upon one portion of which a brush, *i*, is mounted. Over this the returning and inverted pans travel and are cleaned of their dust as much as possible. All these parts should be suitably inclosed; but even under such circumstances effluvia might be given off, disagreeable and noxious. To avoid this as much as possible I have a hot-air pipe, N, extending from the stove C through the

wall and into or under the apartment B. Its outer end communicates with the pans below, and is in such position that that pan which by the movement of the belt is just removed from under the closet stops just under the open end of the air-pipe, whose hot air is thus continually discharged into it and has a tendency to dry its contents. It is not essential, however, that this hot-air pipe should communicate with the stove, for it may lead from any other suitable or more constant source of heat. Nor is it essential that the receptacle for the ashes and feces be constructed of several pans or independent receptacles, (as the belt itself might be made an endless pan or receptacle,) though I prefer to construct it as I have shown.

M is a vent-pipe communicating with the pans below and with the open air at any desirable height. It cannot be supposed that the supply of ashes will in every case be adequate, and to provide for such a contingency I have a hopper, J, for containing sand or earth. A chute or spout, *j*, from this extends downward through the floor of the apartment B, and is adapted to discharge the sand or earth into that pan which is under the closet-seat.

For admitting a charge of sand or earth, I may have any suitable device—such as is used on shot and powder pouches—and consisting of an oscillating spring-lever, K, having gates *k*—one at each end—adapted to move in or withdraw from the spout. A suitable handle, L, operates the lever to close or open the spout.

The contents of the receptacle I may be carted off, or the receptacle itself rolled off on wheels and made use of for a fertilizer—a purpose to which it is especially applicable where earth or wood-ashes form the vehicle for the feces, though by no means worthless even with sand or coal-ashes.

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

1. In a dry-closet apparatus, an endless-receptacle belt mounted under and adapted to receive the excrement or feces from a closet, means for depositing therein a charge of ashes, sand, earth, or other suitable or similar substances, means for introducing hot air upon the contents of the receptacle to dry it, and a mechanism for causing the movement of said endless receptacle to carry off and discharge its contents, substantially as and for the purpose herein described.

2. In a dry-closet apparatus, a stove or other fuel-consuming device and an adjoining closet, in combination with an endless-receptacle belt mounted under said stove and closet, and adapted to receive the ashes from the former and the excrement or feces from the latter, and a mechanism for causing the movement of said endless receptacle to carry off and discharge its contents, substantially as herein described.

3. In a dry-closet apparatus, a stove or other

fuel-consuming device and an adjoining closet, in combination with an endless-receptacle belt mounted under said stove and closet, and adapted to receive the ashes from the former and the excrement or feces from the latter, a hot-air pipe communicating with the stove and with the receptacle-belt to dry its contents, and a mechanism for causing the movement of the belt to carry off and discharge its dried contents, substantially as herein described.

4. In a dry-closet apparatus, the stove C, having ash-pit *c*, and the closet-seat D, in combination with the underlying endless belt F, mounted on drums E, the succession of separate pans G on said belt, and adapted by its movement to be brought successively under the ash-pit of the stove and under the discharge of the closet-seat, a means automatically depositing a charge of ashes in each pan when under the ash-pit, and a mechanism for causing a periodic movement of said belt to carry a pan from under the closet and substitute a fresh one, substantially as herein described.

5. In a dry-closet apparatus, the stove C, having an ash-pit, *c*, with a grated double bottom consisting of a stationary plate, *a*, and sliding plate *a'*, having arm *b*, and returning-spring *s*, in combination with the endless periodically-moving belt F, having pans G, each pan having a raised cam portion, *b'*, for engaging with the arm *b* of the sliding grate-plate *a'*, to cause a discharge of ashes into the pan, substantially as and for the purpose herein described.

6. In a dry-closet apparatus, the stove C, having an ash-pit, *c*, and the closet-seat D, in combination with the underlying endless belt F, mounted on drums E, the succession of separate pans G on said belt, and adapted by its movement to be brought successively under the ash-pit of the stove and under the discharge of the closet-seat, and the means for causing the periodic movement of the belt and pans, consisting of the pulley *e* on drum E, the crank-pulley H, and the belt *e'*, arranged to operate substantially as and for the purpose herein described.

7. In a dry-closet apparatus, the stove C, having ash-pit *c*, and the closet-seat D, in combination with the periodically-moving endless belt F, having pans G, arranged with relation to the stove and closet, as described, the hot-air pipe N, communicating with the stove and pans, and the vent-pipe M, substantially as and for the purpose herein described.

8. In a dry-closet apparatus, the endless belt F, adapted to be rotated, and having pans G, for the purpose described, in combination with the brush *i*, over which the returning inverted pans pass, whereby they are cleaned, substantially as herein described.

In witness whereof I hereunto set my hand.  
THOMAS W. JACKSON.

Witnesses:

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J. H. BLOOD.