M. H. SYNGE.

Earth-Closet.

No. 162,116. Patented April 13, 1875.

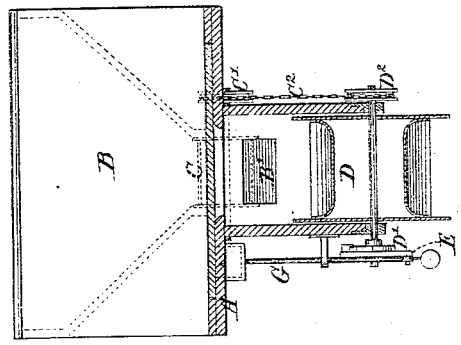

Fig. 3.

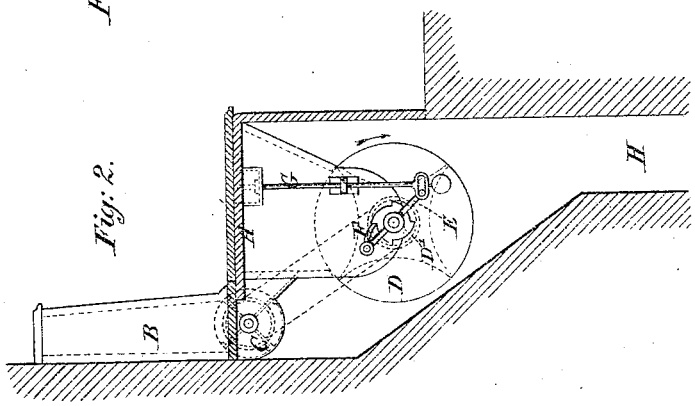

Fig. 2.

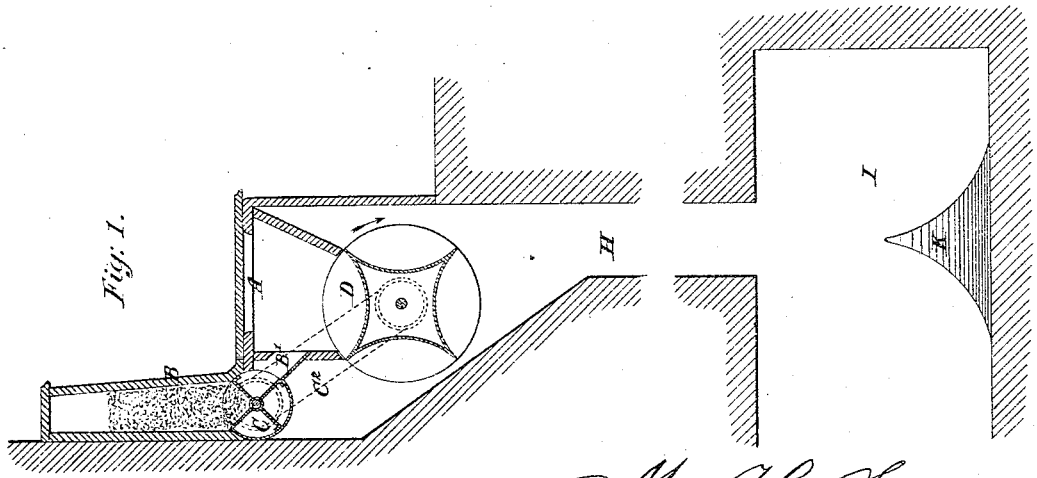

Fig. 1.

Witnesses:
Theo. Haynes
Ferd. Tusch

M. H. Synge
by his Attorneys
Brown & Allen

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UNITED STATES PATENT OFFICE.

MILLINGTON H. SYNGE, OF THE UNITED SERVICE CLUB, PALL MALL, ENGLAND.

IMPROVEMENT IN EARTH-CLOSETS.

Specification forming part of Letters Patent No. **162,116**, dated April 13, 1875; application filed April 9, 1873.

To all whom it may concern:

Be it known that I, MILLINGTON HENRY SYNGE, of the United Service Club, Pall Mall, London, England, Major General Royal Engineers, have invented certain Improvements in Deodorizing Apparatus, of which the following is a specification:

This invention relates to improvements in apparatus for deodorizing fecal matters, either prior or subsequently to discharging them into a receptacle, where they may be allowed to accumulate for a time without detriment to health or creating any inconvenience. The invention consists in the use, in combination with a self-acting deodorant discharge-apparatus, of a series of intercepting pans, applied to a closet and capable of receiving an intermittent axial motion, by means of which empty pans are brought in succession into position, and when filled are caused to discharge their contents into a receptacle below.

In the accompanying drawing, Figure 1 shows the improved apparatus in transverse vertical section. Fig. 2 is an elevation of the left-hand side of the apparatus; and Fig. 3 is a cross-section of the same.

In these figures, A is the closet-seat, and B a chamber at the back thereof, containing granulated charcoal or other suitable dry deodorant. This chamber is closed at bottom by a measuring-wheel, C, which discharges the deodorant in measured quantities down the chute. It will be seen that in about the position of the pan of the ordinary water-closet with respect to the seat A, a four-sided rotating drum, D, is mounted horizontally. The perimeter of this drum is formed with concaves, and the ends of the drum are fitted with disks, and thus a series of four pans, or less or more, is constructed, which pans are intended to receive in succession a charge of deodorant and fecal matters. The spindle of this drum D I fit at one end with a ratchet-wheel, D^1, Fig. 2, the teeth of which correspond in number with the number of the pans, and at the opposite end of the drum-spindle I fit a chain pulley, D^2, which is intended, as the drum rotates, to operate the measuring-wheel C of the chamber B, containing the powdered charcoal or other deodorant, and discharge a suitable proportion thereof into the uppermost pan. Mounted loosely on the drum-spindle and adjacent to the ratchet-wheel, is a bar, E, which carries a pawl or catch, F, that takes into the teeth of the ratchet-wheel D^1. This bar is connected loosely to the rod G of the pull-up handle of the apparatus, which rod is weighted to bring down the handle when the latter is released and force forward the catch, which will thereby impart a quarter revolution to the drum and tip the materials deposited upon the uppermost pan, off that pan, down an adjacent shaft or trunk, H, leading to a receptacle, I. The material, in falling from the shaft into the receptacle I, below, might, if no special provision were made, be liable to accumulate in a heap immediately under the shaft. In order, however, to distribute it over the bottom of the receptacle, I cause it to fall onto a distributor, consisting of a cone, K, with a broad base and concave sides. If this distributor is made with a smooth (by preference, glazed) surface, the falling materials will be shot toward the extremities of the receptacle. The measuring-wheel C consists of four radial leaves, made fast to a pair of disks or circular end plates and constituting therewith four measuring-chambers. Keyed to the axle of the measuring-wheel is a chain pulley, C^1, for receiving an endless chain, C^2, which passes round the pulley D^2, and thus connects the measuring-wheel and drum together. The drum D, as it is turned round by the action of the pull-up handle in the direction of the arrow, discharges the contents of the uppermost pan and simultaneously the measuring-wheel C will receive a partial rotation. The effect of this will be to cause a momentary discharge of charcoal or other deodorizer from the chamber B into the pan that has just been brought into position, and thereby to prepare the apparatus again for use.

It will be understood that the drum may be provided with any desired number of pans, and that the mechanism for rotating it and the measuring-wheel of the deodorant chamber, may be indefinitely varied without departing from the nature of my invention. It

will also be obvious that instead of using the pull-up handle as the means for imparting motion to the drum and delivery-valve, other well-known or equivalent means used in connection with water-closets, for transmitting motion, may be employed.

Having now set forth the nature of my invention, and explained the manner of carrying it into effect, I wish it to be understood that I claim—

The combination of the rotating pans with the measuring instrument for supplying the charcoal or other deodorant to the pans, as the same are brought up into position for use, substantially as specified.

M. H. SYNGE.

Witnesses:
H. K. WHITE,
66 *Chancery Lane, London.*
J. B. WYNN,
24 *Royal Exchange, London.*