

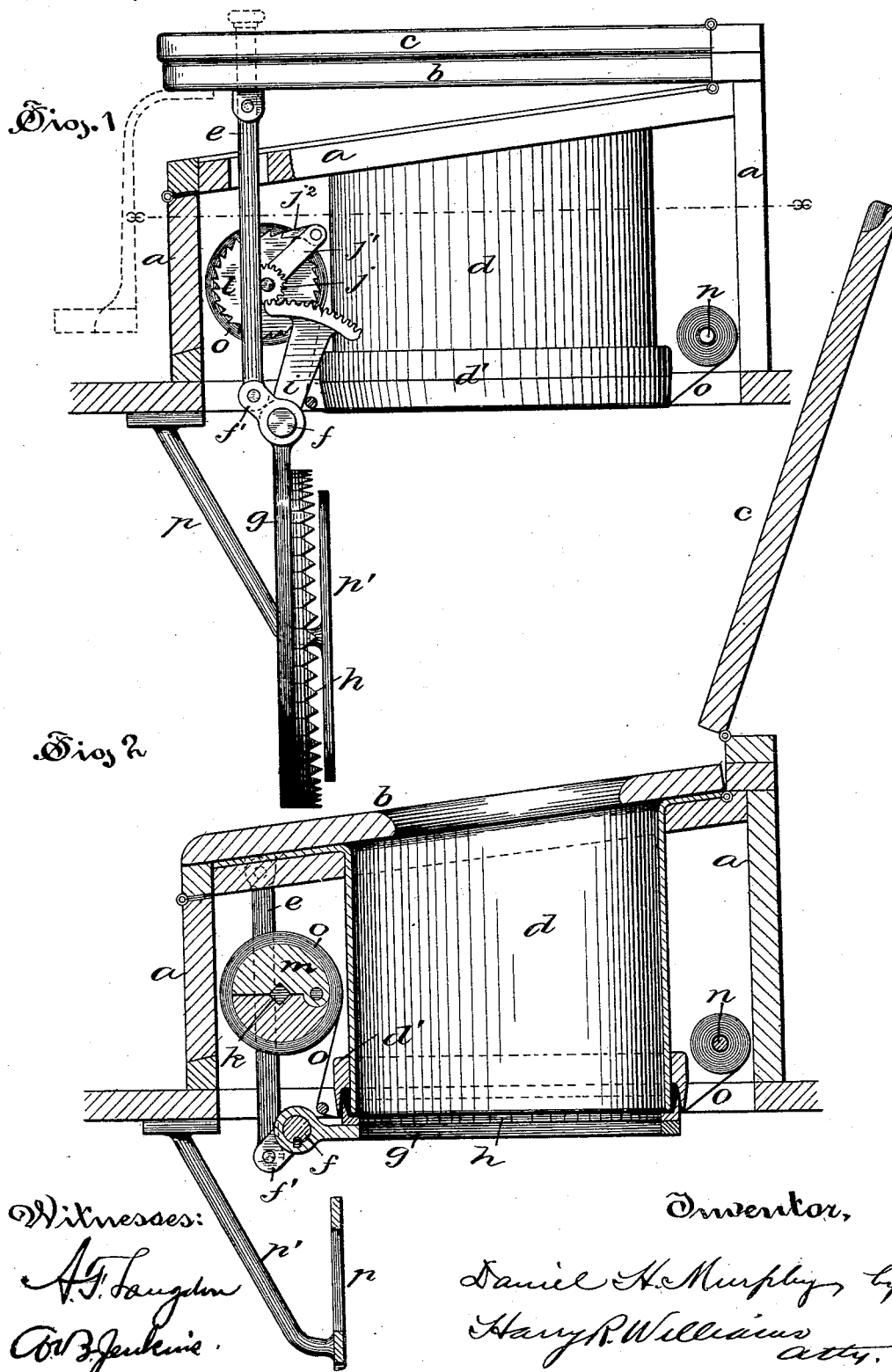
(No Model.)

2 Sheets—Sheet 1.

D. H. MURPHY.
COMMODE.

No. 454,128.

Patented June 16, 1891.



Witnesses:

A. J. Langdon
C. W. Jenkins.

Inventor,

Daniel H. Murphy, by
Harry R. Williams atty.

D. H. MURPHY.
COMMODE.

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Fig. 3.

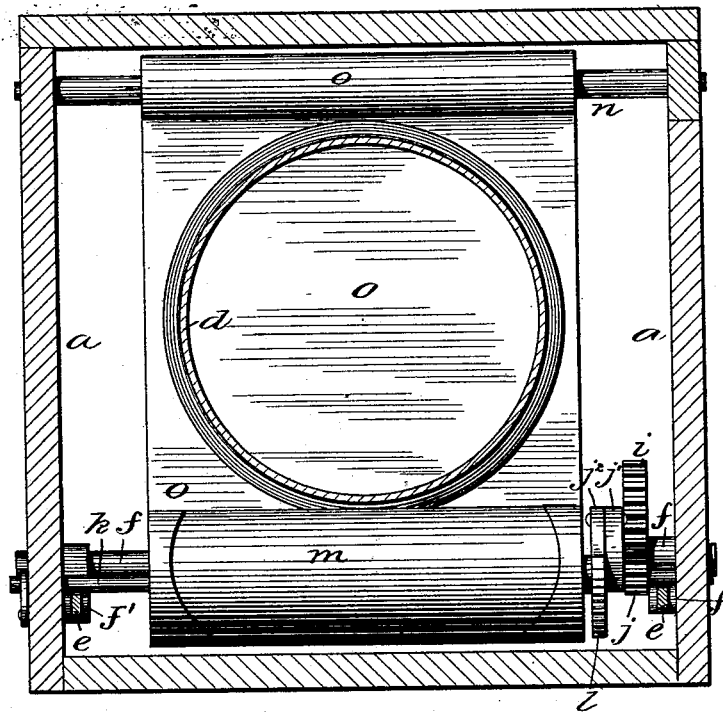
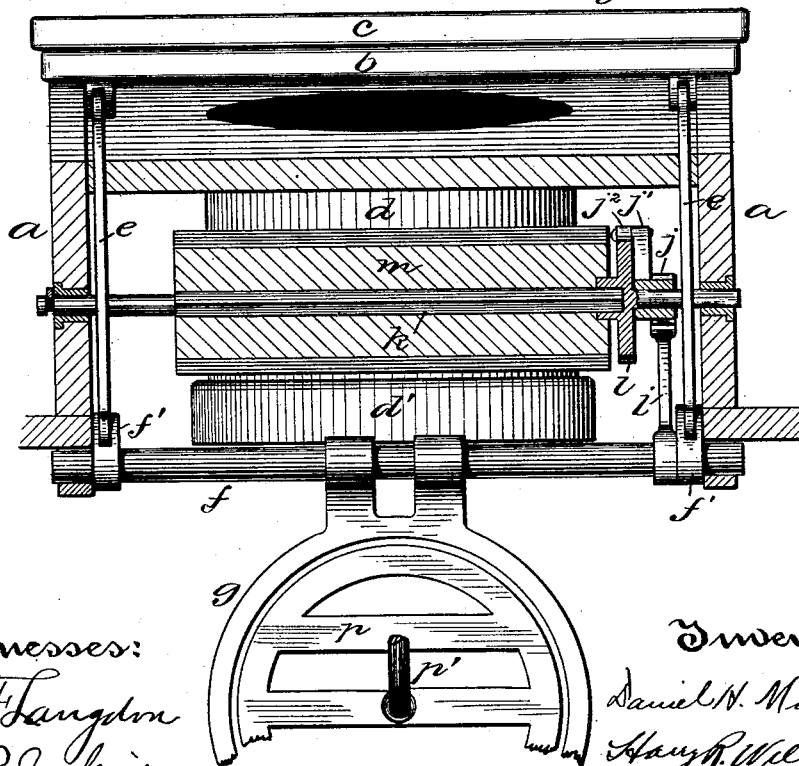


Fig. 4.



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UNITED STATES PATENT OFFICE.

DANIEL H. MURPHY, OF HARTFORD, CONNECTICUT.

COMMODOE.

SPECIFICATION forming part of Letters Patent No. 454,128, dated June 16, 1891.

Application filed September 25, 1890. Serial No. 366,089. (No model.)

To all whom it may concern:

Be it known that I, DANIEL H. MURPHY, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Commodes, of which the following is a full, clear, and exact specification.

The invention relates to the class of sealed commodes or dry closets which are more particularly adapted for railway-cars; and the object is to provide a simple and cheap article of this class which is automatically opened and closed in such manner as to exclude the passage of dust and dirt laden drafts of air through the bowl or tube, and prevent the diffusion throughout the apartment in which the commode is located of effluvia and fetid odors from the feces.

Referring to the accompanying drawings, Figure 1 is a side elevation with a part of the casing cut in section to show the seal-operating mechanism. Fig. 2 is a central vertical section of the same. Fig. 3 is a horizontal section on plane denoted by the broken line *x x* of Fig. 1. Fig. 4 is a front view with a part in vertical section.

In the views, the letter *a* indicates the casing, to the back edge of the top of which are hinged the open seat *b* and the cover *c*. The bowl or tube *d*, made of any suitable material, as porcelain or iron, in any desirable shape, is supported by this casing in any ordinary manner. Rods *e*, pivoted to the bottom of the seat, preferably upon each side, are pivoted to cranks or rocker-arms *f'* on a shaft *f*, secured to which is a frame *g*, bearing cutting-blades usually arranged in a circle, so as to form an annular knife *h*, preferably having a serrated or notched edge, and a segmental gear *i*, which meshes with a pinion *j*, loosely mounted on a shaft *k*, supported parallel with the shaft *f*. Secured to this pinion is an arm *j'*, bearing a pawl *j²*, which engages a ratchet-wheel *l*, that rotates with the shaft *k*. Upon the squared portion of this shaft is placed a roll *m*, preferably formed in two parts hinged together in order that the roll may be loosened from the shaft for removal; also, that it may be made to clasp and hold one end of the sealing material *o*, a

long strip of which, somewhat wider than the diameter of the tube, is wound upon a roll *n*, removably held in suitable bearings in the casing upon the opposite side of the tube from the roll *m*.

A plate or frame *p* is supported and held a little in advance of the plane of the knives by a rod or standard *p'*, that passes through the opening in the knife-frame, so that any material which might cling to the knives is thrust off when they drop to their normal position.

A roll *n*, containing the sealing material *o*, which may be paper or a similar cheap frangible rendible material which is easily cut or torn, is placed in its bearings in the casing and the end of the paper led across the tube either at the bottom or through an opening in its walls and secured to the roll *m*. When the seat is depressed, as by the weight of a person, the shaft *f* is rotated and the knife *h* swings upward, so that the blades pass into the socket between the flange *d'* and the bottom of the tube *d*, which the flange surrounds, severing a circular piece from the center of the sealing material over the bottom of the tube. At the same time the segmental gear is oscillated and the pinion rotated, so that the pawl travels freely over the teeth of the ratchet-wheel, which remains stationary. When the pressure is removed from the seat, the weight of the frame *g* causes the knives to swing downward, allowing the cut portion of the seal upon which the feces have been deposited to drop from the tube. As the gear is oscillated back and drives the pinion, the pawl catches the ratchet and feeds the roll, winding the edges of the cut portion upon the roll *m* and quickly drawing a whole piece of the sealing material across the end of the tube, so as to completely seal it with a fresh clean piece of material having no noxious odor, but which may be saturated with a disinfectant for dispelling mephitic vapors, which prevents the entrance of dust or dirt and cold air through the tube into the apartment.

If it is desired, the oscillation of the shaft *f* may be accomplished by means of a step connected with the seat or rocker-arm on the shaft, or by means of a bolt or rod that may

be depressed by hand, as shown in dotted outline in Fig. 1.

As the portion of the commode which receives the feces is renewed after each use, there is no exhalation of noxious vapor from the seal as with the ordinary pan, and the commode will keep cleanly for a long period without washing, and should the sealing material exhaust the tube will be open and is capable of use as an ordinary closet without any attention.

I do not limit myself to the precise construction herein shown for accomplishing the object of the invention, as other forms of construction for feeding and cutting the sealing material coming within the scope of my invention may be used equally well.

I claim as my invention—

1. In combination with the tube of a commode, a continuous roll of tearable or easily-cut sealing material adapted to be fed below the seat across the opening through the tube, and a vibrating knife below the seat adjacent to the tube connected with the walls of the commode by vibrating mechanism, whereby at each use of the commode the knife is vibrated and a portion of the sealing material cut away, substantially as specified.

2. In combination with the tube of a commode, a continuous roll of tearable or easily-cut sealing material passing below the seat from side to side over the opening through the tube, and a vibrating knife supported below the seat adjacent to the tube by the walls of the commode and connected by the vibrating mechanism with the seat, whereby the knife is vibrated and a portion of the sealing

material cut away at each use of the commode, substantially as specified.

3. In combination with the tube of a commode, a continuous roll of tearable or easily-cut sealing material passing below the seat from one side across the opening through the tube to a roll upon the opposite side, and a vibrating circular knife supported below the seat adjacent to the tube by the walls of the commode and connected by the vibrating mechanism with the seat, whereby the knife is vibrated and a portion of the sealing material cut away at each use of the commode, substantially as specified.

4. In combination with the tube of a commode, a continuous roll of tearable or easily-cut sealing material passing from one side across the opening through the tube to a roll on the opposite side, a feed-ratchet connected to the roll, a pawl operated by the depression of the seat engaging the ratchet, and a knife for severing a portion of the seal at each use of the commode, substantially as specified.

5. In combination with the tube of a commode, a continuous roll of tearable or easily-cut sealing material passing from a roll on one side across the opening through the tube to a roll on the opposite side, a ratchet connected with the roll, a pawl connected with a pinion engaging the ratchet, a gear engaging the pinion connected with a rocker-shaft bearing knives, and a bolt connected with the rocker-shaft, substantially as specified.

DANIEL H. MURPHY.

Witnesses:

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