

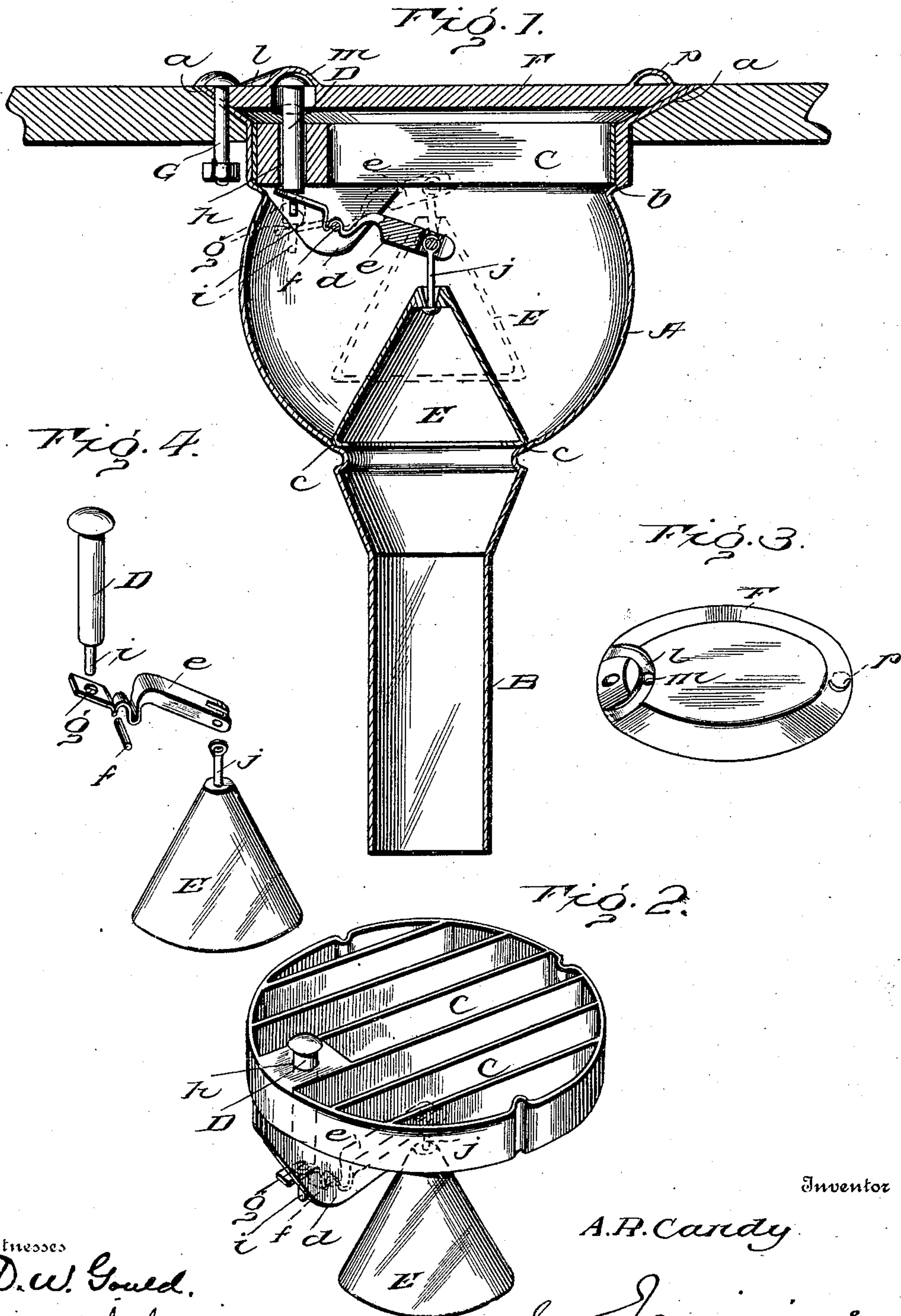
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A. R. CANDY.  
FLOOR CUSPIDOR.

APPLICATION FILED MAY 23, 1902.

NO MODEL.



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# UNITED STATES PATENT OFFICE.

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## FLOOR-CUSPIDOR.

SPECIFICATION forming part of Letters Patent No. 725,672, dated April 21, 1903.

Application filed May 23, 1902. Serial No. 108,741. (No model.)

*To all whom it may concern:*

Be it known that I, ADOLPHE RICHARDSON CANDY, a citizen of the United States of America, residing at Urbana, Champaign county, in the State of Illinois, (whose post-office address is 911 West Green street, Urbana, Illinois,) have invented a new and useful cuspidor, with the apparatus by which the same is manipulated and the principles and application thereof, to be known as a "Floor-Cuspidor," of which the following is a specification.

My invention relates to an improvement in cuspidors of that class designed to be located in the floor and to be directly connected with a drainage or sewerage pipe.

The cuspidor of my invention is designed to be permanently located with relation to the floor, and comprehends a suitable receptacle having a movable cover and a valve covering the drainage-outlet from the receptacle, the valve being automatically controlled by the operation of the cuspidor cover or lid.

The invention also comprehends an improved arrangement and construction of cooperating parts with a view to simplifying the manufacture and reducing the cost of floor-cuspidors without sacrificing any material or important features or results.

The invention will first be described in connection with the accompanying drawings, wherein the preferred form of construction in accordance with my invention is illustrated, and wherein—

Figure 1 of the drawings is a vertical section of my improved cuspidor. Fig. 2 is a perspective view of the grating, valve, and valve mechanism removed from the body of the cuspidor. Fig. 3 is an under side perspective, on a reduced scale, of the cuspidor-cover, illustrating particularly the valve-operating cam-groove. Fig. 4 is a perspective view showing detached the valve and the operating parts therefor.

Referring to the accompanying drawings, wherein like letters of reference indicate like parts throughout the several views, A represents the body of the cuspidor, preferably of metal and rounded in contour, though such body may be of any desired shape. Immediately above the body portion the cuspidor is formed with an offset to provide a shoulder *b*, and above this offset the mouth of the cuspi-

dor is flared outwardly at *a*, forming an inclined lip to snugly engage a similarly-inclined opening in the floor.

Communicating directly with the body portion A of the cuspidor is the drain-pipe B, leading to a sewerage-pipe or other suitable conveyer. In the preferred form, as illustrated, the drain-pipe is formed integral with the body A, the junction being such as to provide a seat *c* for the valve E, hereinafter referred to.

C represents a grating or barred covering for the cuspidor, resting upon the shoulder *b*, as shown, with its upper surface somewhat below the floor-level. The grating is designed to remain in position practically at all times and, as is evident, will prevent interference with the valve mechanism and also prevent persons stepping into the cuspidor when the cover of the latter is opened. A downwardly-projecting ear *d*, integral with the grating, is designed to support the valve-operating mechanism to be described. A headed pin D plays loosely through an opening *h* in the grating C.

E represents a valve for the open end of the drain-pipe B—in the present instance a conical hollow metal body designed when in closed position to rest upon the seat *c*, before referred to. The valve, which is practically free in the body A, is of such size that the converging sides of the body A will effectively guide it to its seat when a closing operation occurs. A lever *e*, connected to the apex of the valve E by link-pin *j*, is pivotally supported on a fulcrumed stud *f*, projecting from the ear *d* of the grating, its free end being slotted at *g* and extending contiguous pin D. The latter pin is reduced at its lower end to form a pintle *i*, designed to rest in slot *g*.

A cover F, pivoted at G and provided with a handle-knob *p*, is designed to rest within the flaring end of the cuspidor, the edge of the cover being oppositely beveled to form a close-fitting joint, it being understood that the pivotal connection G is sufficiently loose to permit the cover to be moved into open or closed position. A cam-groove *l*, formed in the under side of cover F, contiguous the head or pin D, serves to operate the pin, and thereby the valve, in the movement of cover F. The cam-groove has a central non-effective



point *m*, and from this point the cam-groove projects in each direction in identical formation, thus similarly operating pin D, notwithstanding the direction the cover is moved to uncover the cuspidor.

The operation of the device is as follows: The movement of the cover F to permit access to the cuspidor rotates the same upon its pivot G, depressing pin D through contact of the cam-groove *l* therewith, causing pin D to force downward in the free end of lever *e*, raising the valve E from the mouth of the drain-pipe. A return of the cover to a closed position permits the head of pin D to rest in the non-effective point *m* of the cam-groove, allowing the valve E to operate by gravity to close the drain-pipe.

If desired, the surface of cover F may be roughened to prevent slipping thereon when forming a part of the floor-surface and may also bear the indicating-word "Cuspidor."

I am aware that it is not broadly new to operate the valve of a drain-pipe in communication with a cuspidor; but all such constructions with which I am familiar require independent operations for the valve, and in none of them is the valve automatically controlled by the movement of the cover, being opened when the cover is moved to open the cuspidor and allowed to close when the cover is moved to close the cuspidor.

What I claim as new is—

1. A cuspidor, a drain in connection therewith, a movable cover for the cuspidor, formed with a cam-groove, a valve for the drain, and mechanism operated by the cam-groove in the movement of the cover to control the valve, said cam-groove being formed with a central non-effecting point, whereby the valve-operating mechanism is not affected when the cover is closed.

2. A cuspidor, a drain in communication therewith a movable cover for the cuspidor, a valve for the drain, a pin slidingly supported by the cuspidor, mechanism interme-

diating the pin and valve for operating the latter in the movement of the pin, and a cam-groove formed in the cover and adapted to operate the pin in the movement of the cover.

3. A cuspidor, a drain in communication therewith, a movable cover for the cuspidor, said cuspidor being narrowed and formed with a valve-seat at its junction with the drain, a conical valve adapted for cooperation with said seat, mechanism intermediate the cover and valve for lifting the valve from its seat in opening the cover, and permitting the valve to seat itself by gravity in the closing of the cover.

4. A cuspidor, a drain-pipe in communication therewith, a valve for said drain-pipe, a pin slidingly supported by the cuspidor, mechanism intermediate the pin and valve for operating the latter in the movement of the pin, and a cam-groove formed in the cover for operating said pin, said cam-groove being formed with a central non-effecting point and with duplicate opposite the projecting cam-surfaces from said non-effecting point, whereby when the cover is closed the valve is not affected, but is operated by movement of the cover in either direction.

5. A cuspidor comprising a body portion formed with an offset, a drain-pipe communicating with said body portion, a valve-seat formed at the junction of the drain-pipe and body portion, a valve for said seat, a grating resting in the offset of the body portion, a lever pivoted to said grating and connected with the valve, a cover for the cuspidor, a headed pin, passing through the grating and engaging the end of the valve-lever, and a cam-groove formed in the cover for operation with said headed pin, whereby in the movement of the cover, the valve is operated.

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Attest:

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