P. H. COLLING.

CUSPIDOR.

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1,167,273.

Patented Jan. 4, 1916.

Fig. 1.

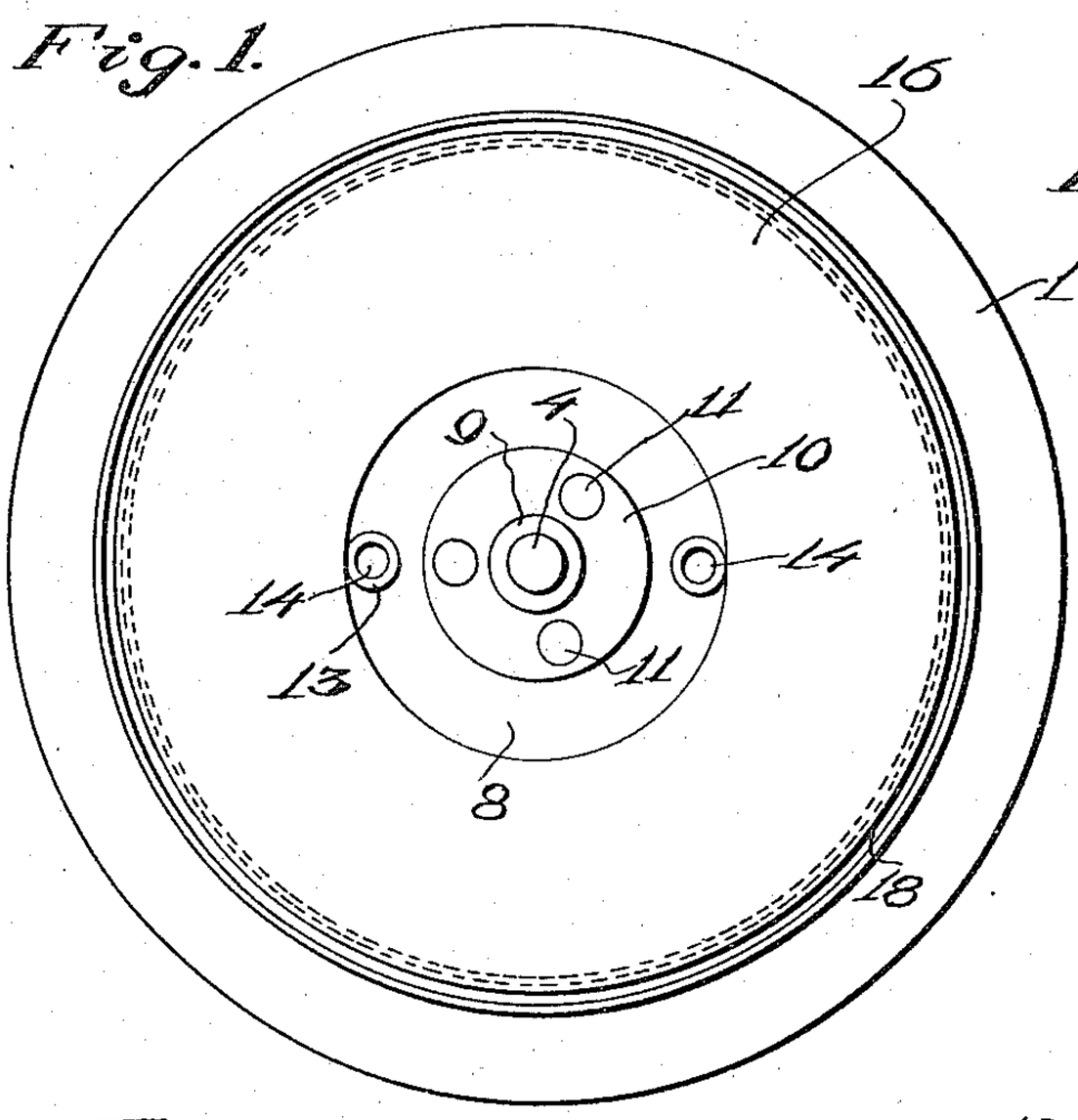

Fig. 4.

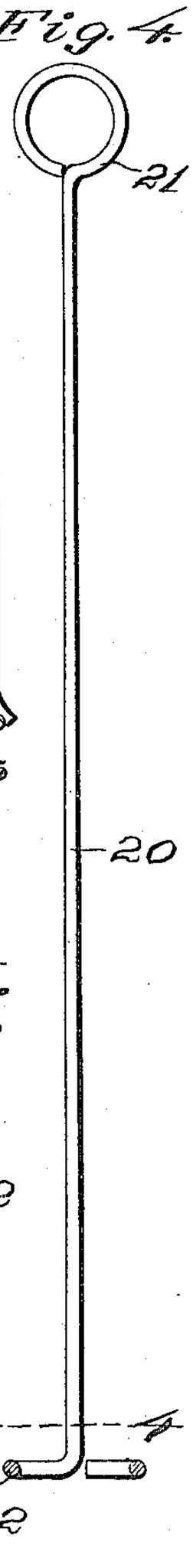

Fig. 3.

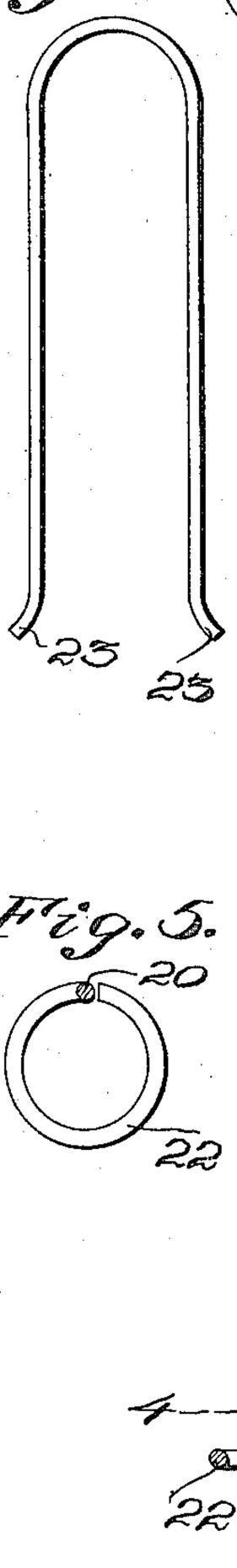

Fig. 2.

Fig. 5.

Witnesses

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CUSPIDOR.

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To all whom it may concern:

Be it known that I, PETER H. COLLING, a citizen of the United States, residing at Albany, in the county of Albany and State of New York, have invented certain new and useful Improvements in Cuspidors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to cuspidors, and has for one object to resiliently mount the cuspidor in a flushing tank or receptacle, so that the cuspidor can be flushed and cleaned by moving the same downwardly within the tank.

Another object of the invention is to provide a cuspidor for carrying out the above object, which will be of simple construction, durable, efficient in operation and which can be conveniently removed from and replaced within the flushing tank, as desired.

Other objects will appear and be better understood from that embodiment of my invention of which the following is a specification, reference being had to the accompanying drawing forming a part thereof, in which:

Figure 1 is a top plan view of the cuspidor, Fig. 2 is a vertical sectional elevation taken through the cuspidor, Fig. 3 is a vertical elevation of a detachable handle adapted to be connected to the cuspidor so as to admit of the convenient removal of the cuspidor from the flushing tank and the replacement of the cuspidor within the tank, Fig. 4 is a vertical elevation of another handle employed for depressing the cuspidor so as to flush the same, and Fig. 5 is a sectional plan view, taken on the line 4—4 of Fig. 4.

Referring to the drawing, the numeral 1 indicates a flushing tank, which is substantially of frusto-conical configuration, having a concavo convex bottom wall 2, and having its upper end open. The convex surface of the bottom wall 2 extends inwardly of the receptacle 1 and supports an annular base 3 to which is connected the lower end of a vertical cylindrical shaped upright 4. The diameter of the annular base 3 greatly exceeds that of the upright 4, and the said base 3 is connected to the bottom wall 2 of the tank 1 by means of headed studs 5 which extend through the bottom wall 2 and through the adjacent wall of the annular base 3.

Mounted for vertical movement within the flush tank 1, is a cuspidor which includes a cylindrical shaped body 6, which is of a diameter considerably less than the diameter of the flushing tank 1, and has its lower end closed by means of a bottom wall 7, which is centrally provided with an opening 8, which registers with the bore of a verticallv disposed sleeve 9, mounted concentrically within the cuspidor and which has a base flange 10 resting upon the upper side of the bottom wall 7, and secured to the bottom wall by means of headed studs 11, which extend through the base flange 10 and through the bottom wall 7, as shown in Fig. 2 of the drawing. The sleeve 9 and the opening 6 in the bottom wall 7, loosely receive the upper end of the upright 4, so as to admit of the cuspidor 6 having sliding movement on the upright.

The cuspidor 6 is normally held in the position shown in Fig. 2 by means of a conical shaped coiled spring 12, which surrounds the upright 4 and has its lower enlarged end received by the annular base 3, and its upper end engaging against the under side of the lower wall 7 of the cuspidor and at a point in line with the sleeve 9. By virtue of this spring 12, the upper end of the cuspidor 6 will lie in the same plane with the upper end of the flushing receptacle 1, as shown in Fig. 2.

The bottom wall 7 of the cuspidor 6 is provided at diametrically opposite points with openings, which receive cylindrical shaped inserts 13, which have longitudinal passages 14 therein so as to effect communication between the interior of the cuspidor 6 and the flushing tank 1, and the said inserts 13 have their opposite ends upset, as at 15, against the adjacent surfaces of the bottom wall 7.

The upper end of the cuspidor 6 has removably associated therewith a cap 16. This cap 16 is of substantially frusto-conical shape and extends into the cuspidor 6 and is provided with an opening 17 by which access can be had into the interior of the cuspidor. The outer edge of the cap 16 is provided with a marginal flange 18, which snugly engages over the upper end of the cuspidor 6. The walls of the cuspidor are provided adjacent the upper end of the

cuspidor with an annular bead 19, which, when the cap 16 is positioned on the upper end of the cuspidor lies in close proximity to the adjacent edge of the annular flange 18 on the cap 16.

In use, the flushing tank 1 is partially filled with water or other cleansing fluid, as shown in Fig. 2, and when any sputum or other matter sticking to the cap 16 of the cuspidor, said cuspidor is forced downwardly on the upright 4, causing the water to flow over the cap 16 and into the cuspidor 6, so as to remove the sputum or the adhering matter from the cap 16. When pressure is released from the cuspidor 6, the spring 12, which has been compressed by the downward movement of the cuspidor, will return the cuspidor to the position shown in Fig. 2, causing the water or cleaning fluid to flow from the cuspidor 6 through the passages in the insert 13, and back into the tank 1.

In order to conveniently and expeditiously cause the downward movement of the cuspidor 6, a manipulating member 20, shown in Fig. 4, is provided. This manipulating member 20 includes an elongated shank, having one end provided with a vertically disposed ring 21, and its opposite end provided with a horizontally disposed ring 22. When it is desired to depress the cuspidor, the manipulating member 20 is inserted into the cuspidor and the ring 22 positioned on top of the sleeve 9, as is shown in dotted lines in Fig. 2. Downward pressure is then exerted on the manipulating member 20, resulting in the depression of the cuspidor and the emerging of the same into the water or cleaning fluid, so as to cause the water or cleaning fluid to flow over the top of the cap 16.

When it is desired to remove the cuspidor from the flushing tank 1, the U-shaped manipulating member, as shown in Fig. 3, is provided. This manipulating member has the terminals of its sides flared outwardly, as at 23, and the said flared terminals are adapted to be inserted through the passages in the insert 13 and to engage beneath the adjacent ends of the inserts so as to hold the manipulating member in position, and to admit of the cuspidor being removed from the flushing tank 1, by the operator lifting upwardly on the manipulating member.

As is shown in Fig. 2, the annular base 3 has its under surface concaved, to accommodate the convex surface of the bottom wall 2. By virtue of this construction, the lateral strain on the upright 4, will be prevented from exerting, to a considerable degree, lateral strain on the fastening rivets 5, which hold the base 3 to the bottom walls 2.

The beads 19 on the walls of the cuspidor, serve to prevent the upward pressure of the water when the cuspidor is depressed, from forcing the cap 16 from its position on the upper end of the cuspidor 6.

Having thus described my invention what I claim as new, is:

1. The combination with a flush tank having an upright therein, and a cuspidor movably mounted within the tank and having an opening in its bottom wall adapted to loosely receive the upright, and a sleeve mounted within the cuspidor and registering within the openings in the bottom wall and loosely receiving the upper end of the upright, and a base flange carried by the sleeve and resting on and secured to the bottom wall of the cuspidor.

2. In combination, a flush tank having a concavo convex bottom wall and having a convex surface extending into the tank, an upright positioned within the tank and adapted to support a cuspidor, a base plate carried by the lower end of the upright and having its under surface concaved and engaging the convex surface of the bottom wall of the tank, and means for securing the base plate to the bottom wall of the tank.

3. In combination, a flush tank, an annular base plate mounted within the tank, an upright carried by the base plate, a cuspidor slidably mounted on the upright, and a helical spring encircling the upright and having one end engaging the under side of the cuspidor and its opposite end mounted on the base plate.

4. A cuspidor of the class described comprising a flush tank, a hollow cylindrical body movably mounted within the tank and having an annular rib formed thereon adjacent its upper end, a cap closing the upper end of the cylindrical body and having an opening therein and having a depending flange thereon engaging over the upper edge of the receptacle and lying in close proximity to the annular bead on the cylindrical body.

In testimony whereof I affix my signature in presence of two witnesses.

PETER H. COLLING.

Witnesses:
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JOHN E. COLLING.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."