May 29, 1923.

1,457,053

C. E. BOWLES

SPITTOON AND WASTE FLUSH

Filed July 17, 1922

4 Sheets-Sheet 1

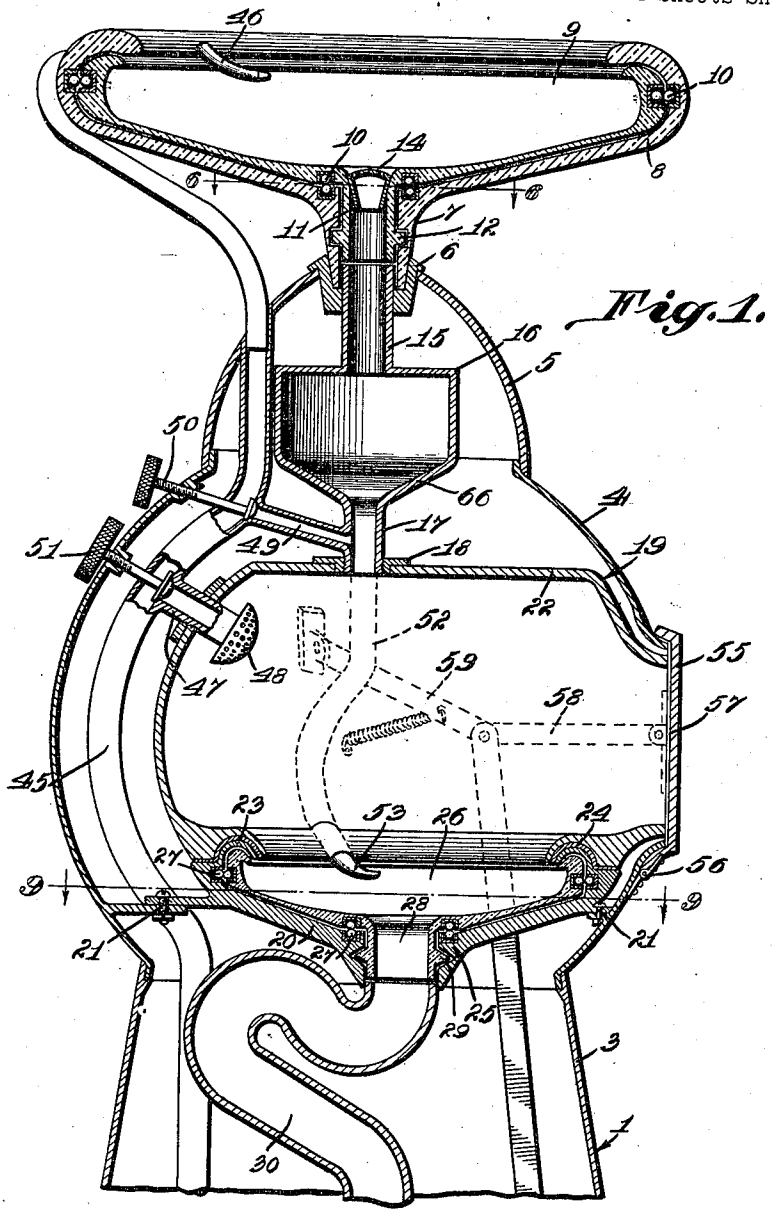


Fig. 1.

C. E. Bowles,

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4 Sheets-Sheet 2

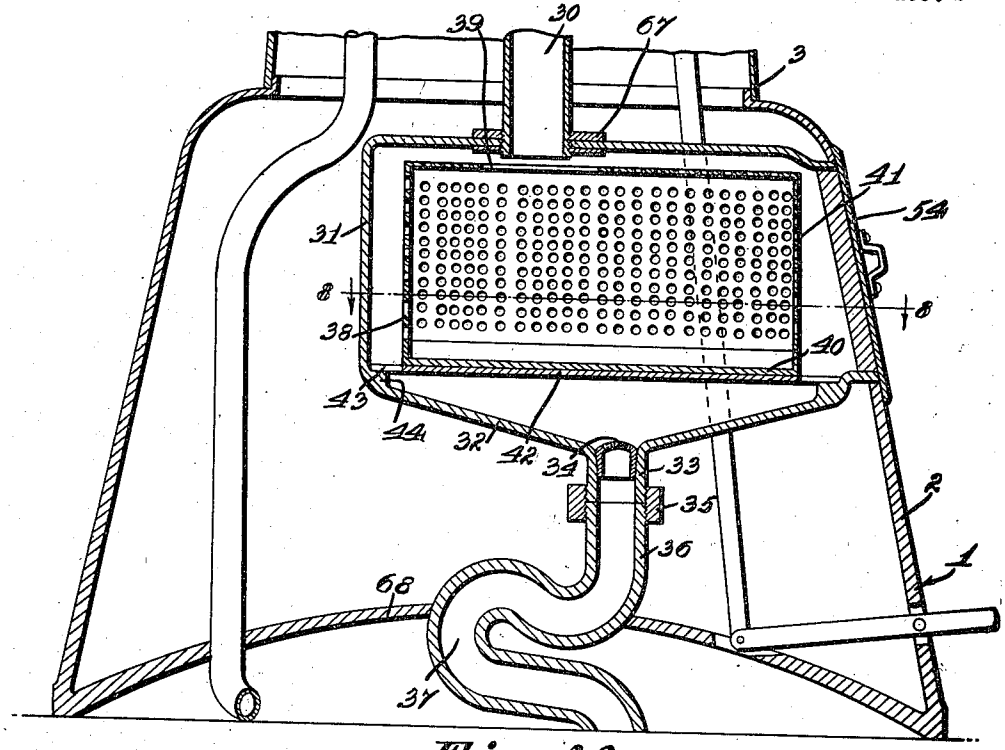


Fig. 1A.

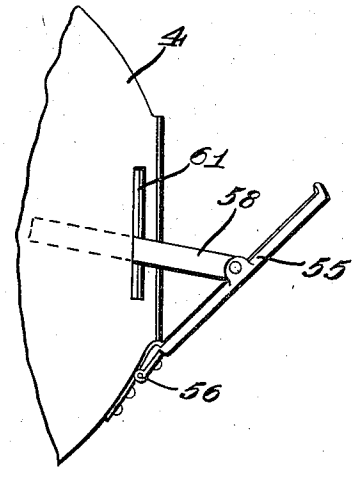


Fig. 2.

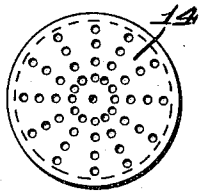


Fig. 3.

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4 Sheets-Sheet 3

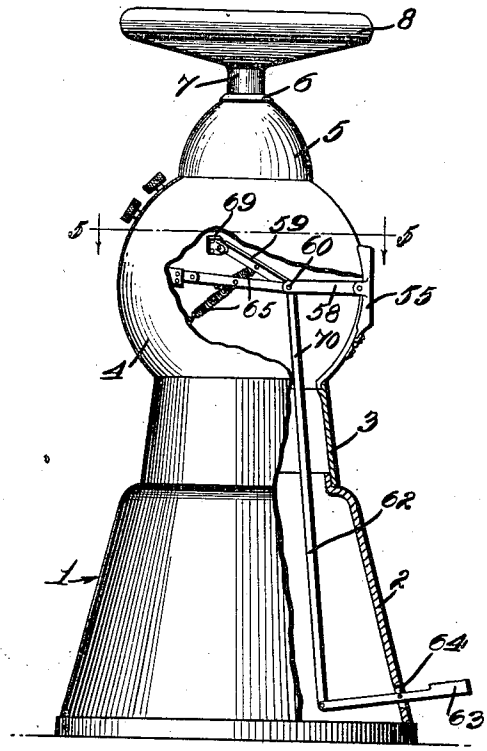


Fig. 4.

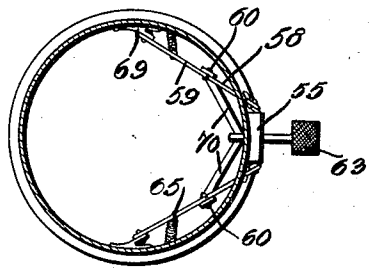


Fig. 5.

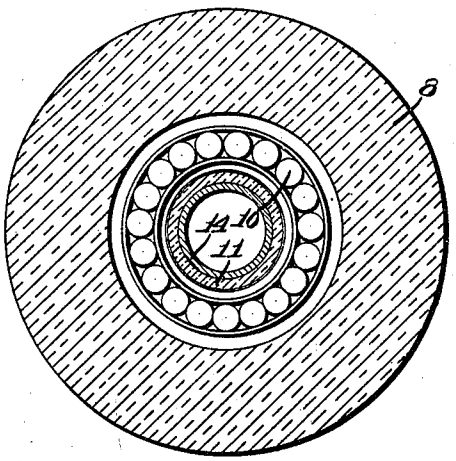


Fig. 6.

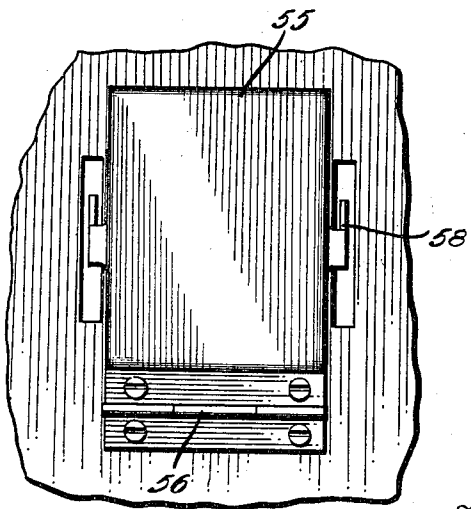


Fig. 7.

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1,457,053

C. E. BOWLES

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4 Sheets-Sheet 4

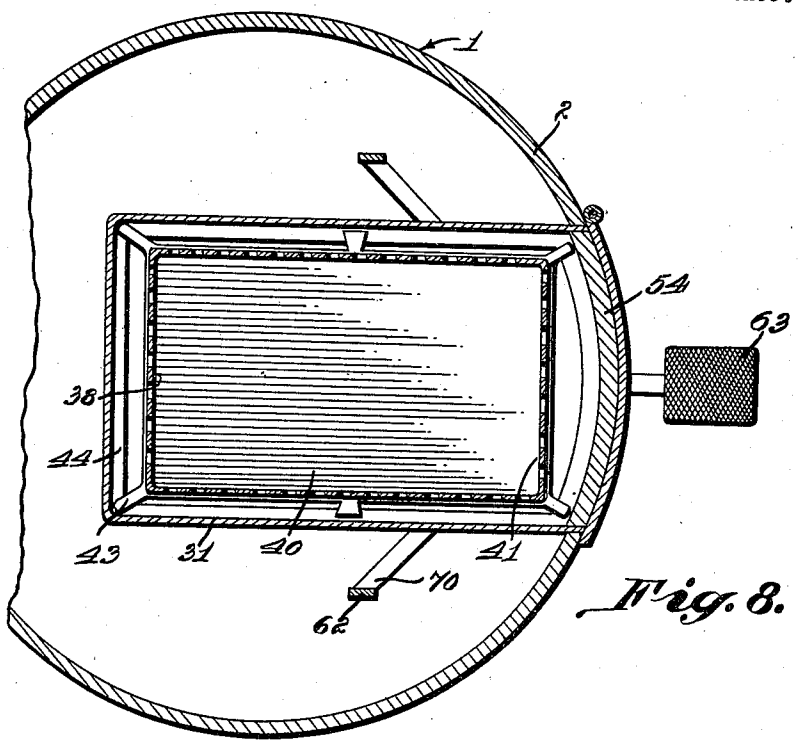


Fig. 8.

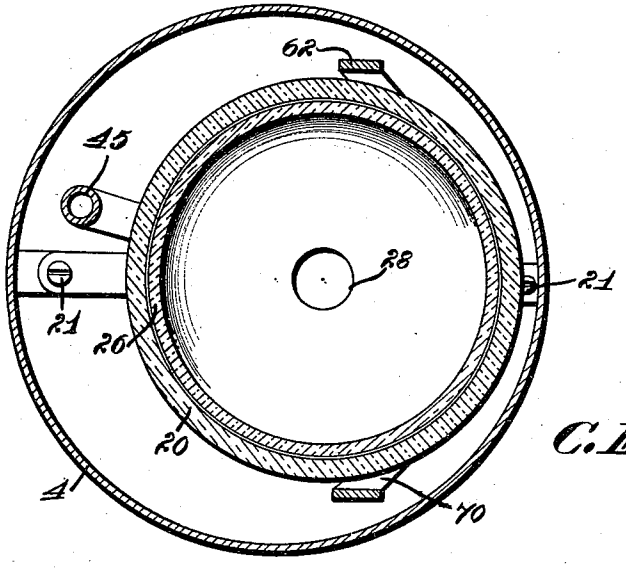


Fig. 9.

C. E. Bowles,

Inventor

By Cushman & Co.

Attorney

Patented May 29, 1923. 1,457,053

UNITED STATES PATENT OFFICE.

CHARLES ELMORE BOWLES, OF PULASKI, VIRGINIA.

SPITTOON AND WASTE FLUSH.

Application filed July 17, 1922. Serial No. 575,679.

To all whom it may concern:

Be it known that I, CHARLES ELMORE BOWLES, a citizen of the United States, residing at Pulaski, in the county of Pulaski and State of Virginia, have invented a new and useful Spittoon and Waste Flush, of which the following is a specification.

This invention aims to provide novel means whereby waste, such as cotton and the like, of the sort used in the offices of physicians, dentists and specialists, may be collected and taken care of in a thoroughly sanitary and inoffensive way, the waste being washed down by the water proceeding from a spittoon. The invention aims, further, to provide a device which will take care of waste, without resort to deodorant or antiseptic solutions, frequent emptyings of a waste receptacle being avoided, and the machine being so constructed that repairs will be infrequent.

It is within the province of the disclosure to improve generally and to enhance the utility of devices of that type to which the invention appertains.

With the above and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that, within the scope of what is claimed, changes in the precise embodiment of the invention shown can be made without departing from the spirit of the invention.

In the accompanying drawings:—

Figure 1 shows in vertical section, the upper portion of a device constructed in accordance with the invention, parts appearing in elevation; Figure 1ª shows in vertical section, the lower portion of a device constructed in accordance with the invention, parts appearing in elevation, and Figure 1ª being supplemental to Figure 1; Figure 2 is a fragmental elevation showing one of the doors and the operating mechanism therefor; Figure 3 is a top plan disclosing one of the strainers; Figure 4 is a side elevation showing the frame work of the device and the operating mechanism for one of the doors, parts being removed and parts being broken away; Figure 5 is a cross section one the line 5—5 of Figure 4; Figure 6 is a cross section on the line 6—6 of Figure 1; Figure 7 is an elevation showing, in closed position, the door which appears in Figure 2; Figure 8 is a cross section on the line 8—8 of Figure 1ª; Figure 9 is a cross section on the line 9—9 of Figure 1.

The device forming the subject matter of this application comprises a frame, denoted generally by the numeral 1, the frame including a base 2 carrying a collar 3 surmounted by a globular body 4 carrying a dome in which is mounted a seat 6 receiving the reduced end 7 of a casing 8 wherein a spittoon 9 is anti-frictionally mounted at 10 for rotation, the spittoon including a neck 11 held at 12 for rotation in the end 7 of the casing 8. A perforated strainer 14 is seated in the upper end of the neck 11 of the spittoon.

The numeral 16 marks a reservoir including an upstanding tube 15 mounted in the seat or coupling 6. The reservoir 16 has a conical bottom 66 provided with a reduced outlet 17.

A waste receiver 19 is disposed in the body 4 of the frame 1. The waste receiver 19 is a composite structure, including a funnel-shaped base 20 supported at 21 in the body 4, the waste receiver 19 including a top member 22, the top member and the base 20 being supplied with cooperating flanges 23, between which packing 24 is located. At this point, it may be stated that packings may be used wherever necessary. It will be understood further, that any desired materials, such as metal porcelain and the like may be used in making the various parts of the structure, these details having nothing to do with the general operation of the machine. The outlet 17 of the reservoir 16 is connected by a coupling 18 with the top member 22 of the waste receptacle 19. The base 20 of the waste receiver 19 has a reduced end 25.

A basin 26 is anti-frictionally supported at 27 for rotation in the bottom or base member 20 of the waste receiver 19, the basin having a reduced neck 28 held for rotation in the part 25 of the waste receiver. The upper end of a trap 30 is mounted in the part 25 of the waste receiver 19.

A vessel 31 is disposed in the base 2 of the frame 1, the lower end of the trap 30 being attached at 67 to the upper portion of the vessel 31. The vessel 31 has a conical bottom 32 provided with an outlet 33, a strainer 34 being seated in the outlet; the outlet 33 is connected at 35 to the upper end of a drain 36 comprising a trap 37 extended

downwardly through the platform 68 of the base 2, should it be considered expedient to provide the base with such a platform.

A removable waste collector 38 is disposed in the vessel 31 and may be supported therein in any desired way. If preferred, the waste collector 38 may be carried by a table 42 having spaced fingers 43 engaging a shoulder 44 on the vessel 31. In the top of the waste collector 38, an enlarged opening 39 is formed the trap 30 discharging into this opening. It will be understood, without specific illustration, that the entire top of the collector 38 may be opened, if desired. The bottom of the waste collector 38 preferably is imperforate, as shown at 40, whereas the top of the collector is perforated, the side wall of the collector being perforated, as shown at 41, downwardly, to a plane spaced a short distance from the bottom of the collector.

A water supply pipe 45 extends upwardly through the frame 1 and terminates in a nozzle 46 discharging downwardly into the spittoon 9, tangentially of the spittoon, so that when water is discharged into the spittoon, through the nozzle 46, the spittoon will be rotated. The water supply pipe 45 has a branch 47 discharging into the waste receiver 19 and provided at its inner end with a spray head 48. A valve 51, of any desired sort, controls the flow of water from the pipe 45, through the branch 47 and through the spray head 48. The pipe 45 has a branch 49 communicating the outlet 17 of the reservoir 16, the branch 49 being under the control of a valve 50. A downwardly extended conduit 52 is formed in the side of the top member 22 of the waste receiver 19, and communicates with the outlet 17 of the reservoir 16, the conduit being supplied at its lower end with a nozzle 53 which discharges downwardly into the rotatable basin 26, tangentially thereof, so as to impart rotation to the basin.

The base 2 of the frame 1 carries a hingedly mounted door 54 giving access to the vessel 31 and enabling the waste collector 38 to be removed at will. A door 55 is hinged at 56 to the body 4 of the frame 1 and gives access to the waste receiver 19 so that waste can be cast into the receiver. The door 55 may carry packing 57, the door and the packing affording an hermetic closure, to the end that odors may not escape from the waste receiver 19.

A means is provided whereby the door 55 may be opened by the foot of an operator, to the end that the operator may not soil his hands whilst he is engaged in his work. With this end in view, the forward ends of rearwardly diverging links 58 are pivoted to the door 55 and operate in slots 61 in the body 4. The rear ends of links 59 are pivotally supported at 69 on the body 4. Retractile springs 65 are connected at their upper ends to the links 59 and are connected at their lower ends to the body 4 of the frame 1. Pivot elements 60 join the rear ends of the links 58 with the forward ends of the links 59, and join the links, likewise, to a fork 70 on the upper end of an operating rod 62, extended downwardly within the frame 1 and pivoted to the inner end of a pedal 63 which is fulcrumed intermediate its ends at 64 on the base 2.

So far as the operation of the door 55 is concerned, it will be obvious that when the outer end of the pedal 63 is thrust downwardly, the rod 62 will be raised, the links 59 and 58 swinging upwardly, and the door 55 swinging outwardly, to an open position, on the hinge 56, the springs 65 serving to draw the links 59 and 58 downwardly and to close the door 55 when the pressure on the outer end of the pedal 63 is relieved.

When the door is opened, waste may be cast into the receiver 19, the waste being received in the rotatable basin 26. Water proceeding upwardly through the pipe 45 is discharged through the nozzle 46 into the rotatable spittoon 9. The spittoon 9 is rotated by the water discharged through the nozzle 46 and as the spittoon rotates, the water tends to move upwardly toward the upper edge of the spittoon, until a sufficient quantity of water has accumulated in the spittoon, whereupon the water flows downwardly through the tube 15 into the reservoir 16. The reservoir 16 is of sufficient size so that, although the water is delivered intermittently from the spittoon, there will be a practically continuous flow of water out of the reservoir 16, through the outlet 17, through the conduit 52, and through the nozzle 53 into the rotatable basin 26 and on the waste in the basin, the basin being rotated by the water proceeding from the nozzle 53 and all portions of the waste in the vessel being subjected to the action of the water. The water carries the waste downwardly through the trap 30 and the trap 30, being filled with water, prevents the stench from rising from the waste collector 38. The water and the waste pass downwardly into the collector 38, the waste being received on the bottom 40 of the collector, and the water passing outwardly, through the perforations 41, and flowing away through the drain 36 and its trap 37, the function of the trap being obvious. The operator, at any time may open the door 54 and remove the collector 38, together with the waste which is therein.

Should it be desired to flush down the waste which has accumulated in the rotatable vessel 26, this may be done by opening the valve 51, so that water may flow from the pipe 45, through the branch 47 and through the spray head 48 upon the

waste. Should it be desired to flush out the conduit 52 and the nozzle 53, or to apply an increased quantity of water to the rotatable basin 26, the valve 50 may be opened, whereupon water will flow from the pipe 45 into the conduit 52, through the branch 49 and the outlet 17.

The device embodies, among other combinations, a rotatable spittoon 9; a source 45 of water supply discharging into the spittoon to secure a rotation therof; a waste receiver 19; a rotatable basin 26 cooperating with the receiver; a conduit 15—17—52 discharging into the basin 26 to secure a rotation thereon; a receiver 16 interposed in the conduit and constituting means for securing a substantially continuous flow from the spittoon 9 to the basin 26; means 50—49 under the control of an operator for securing a flow of water through the conduit independently of the spittoon; means 51—47 under the control of an operator for securing a flow of water into the receiver independently of the spittoon; a vessel 31 having an outlet 36; and a removable waste collector 38 in the vessel and having a plurality of outlets discharging into the vessel.

What is claimed is:—

1. In a device of the class described, a rotatable spittoon; a source of water supply discharging into the spittoon to secure a rotation thereof; a waste receiver; a rotatable basin cooperating with the receiver; a conduit leading from the spittoon and discharging into the basin to secure a rotation thereof; a reservoir interposed in the conduit and constituting means for securing a substantially continuous flow from the spittoon to the basin; means under the control of an operator for securing a flow of water through the conduit independently of the spittoon; means under the control of an operator for securing a flow of water into the receiver independently of the spittoon; a vessel having an outlet; and a removable waste collector in the vessel and having an outlet communicating with the vessel, the basin discharging into the collector.

2. In a device of the class described, a spittoon; a source of water supply discharging into the spittoon; a waste receiver; a rotatable basin cooperating with the receiver; a conduit leading from the spittoon and discharging into the basin to secure a rotation thereof; means under the control of an operator for securing a flow of water through the conduit independently of the spittoon; means under the control of an operator for securing a flow of water into the receiver independently of the spittoon; a vessel having an outlet; and a removable waste collector in the vessel and having an outlet communicating with the vessel, the basin discharging into the collector.

3. In a device of the class described, a rotatable spittoon; a source of water supply discharging into the spittoon to secure a rotation thereof; a waste receiver; a rotatable basin cooperating with the receiver; a conduit leading from the spittoon and discharging into the basin to secure a rotation thereof; a reservoir interposed in the conduit and constituting means for securing a substantially continuous flow from the spittoon to the basin; means under the control of an operator for securing a flow of water through the conduit independently of the spittoon; a vessel having an outlet; and a removable waste collector in the vessel and having an outlet communicating with the vessel, the basin discharging into the collector.

4. In a device of the class described, a spittoon; a source of water supply discharging into the spittoon; a waste receiver; a rotatable basin cooperating with the receiver; a conduit leading from the spittoon and discharging into the basin to secure a rotation thereof; means under the control of an operator for securing a flow of water into the receiver independently of the spittoon; a vessel having an outlet; and a removable waste collector in the vessel and having an outlet communicating with the vessel, the basin discharging into the collector.

5. In a device of the class described, a spittoon; a source of water supply discharging into the spittoon; a waste receiver; a rotatable basin cooperating with the receiver; a conduit leading from the spittoon and discharging into the basin to secure a rotation thereof; a vessel having an outlet; and a removable waste collector in the vessel and having an outlet communicating with the vessel, the basin discharging into the collector.

6. In a device of the class described, a waste receiving means; a spittoon discharging into the waste receiving means; a removable waste collector; a trap assembled with the waste receiver and constituting an inlet for the waste collector; and an outlet for the waste collector, the last specified outlet including a trap.

7. A device of the class described comprising a spittoon; a removable waste collector; a waste receiver interposed between the spittoon and the collector; a connection between the spittoon and the receiver; a connection between the receiver and the collector; and means for discharging water into the receiver.

8. In a device of the class described, a spittoon; a waste collector; a waste receiver interposed between the spittoon and the collector; a connection between the spittoon and the receiver; a trap forming a connection between the receiver and the collector; and a source of water supply discharging

into the receiver and into the spittoon, that portion of the source which discharges into the receiver being valve-controlled.

9. In a device of the class described, a frame; a door hinged to the frame; links having their outer ends pivoted, respectively, to the frame and to the door; a retractile spring connecting one link with the frame; an operating member; a pivotal connection between the operating member and both links; and a pedal pivoted on the frame and pivoted to the operating member.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

CHARLES ELMORE BOWLES.