

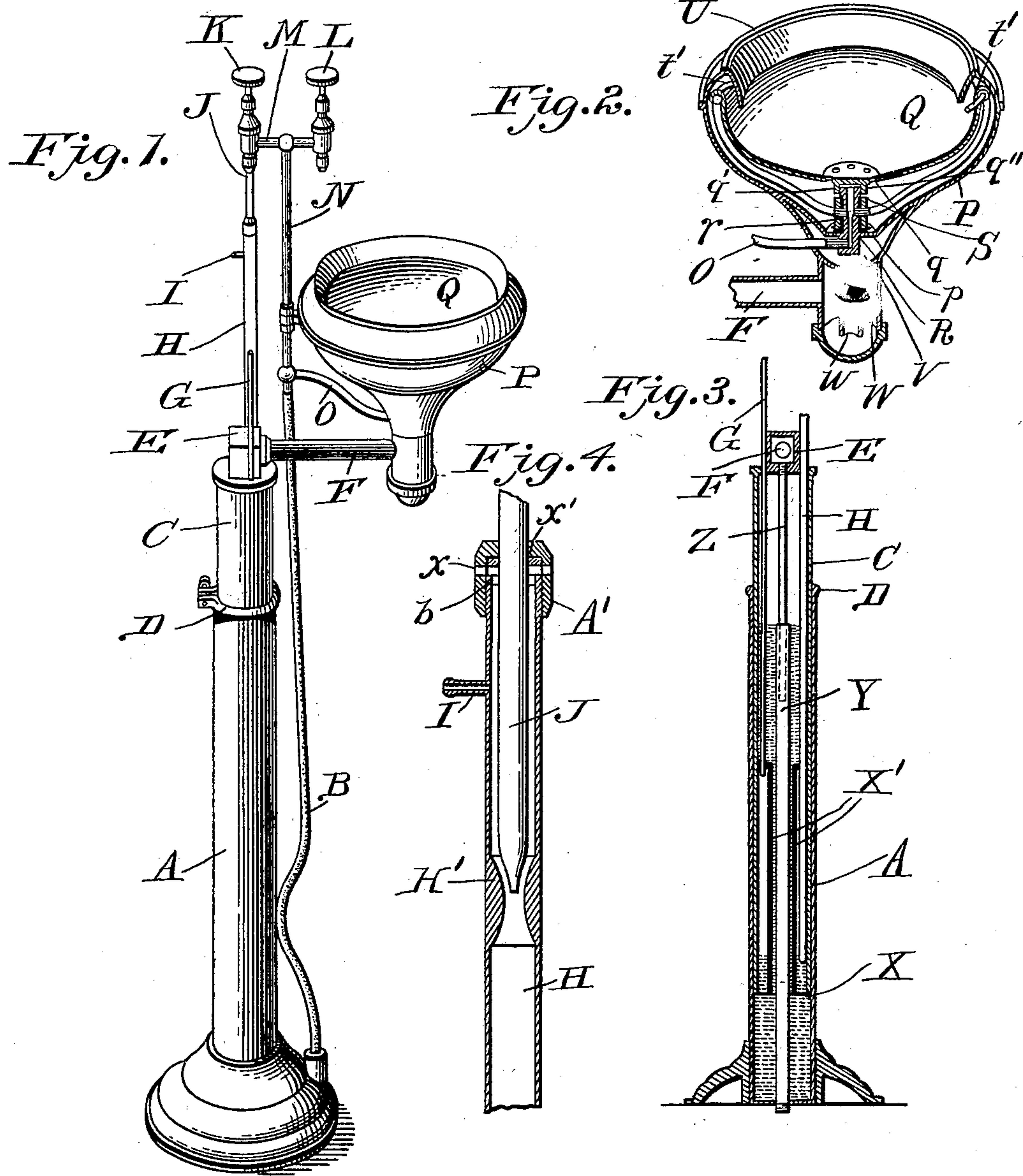
No. 626,810.

Patented June 13, 1899.

W. A. INGLEHART.  
FOUNTAIN SPITTOON.

(Application filed Mar. 25, 1898.)

(No Model.)



WITNESSES:

Edwin G. McKee.  
Geo. M. Anderson

INVENTOR

W. A. Inglehart  
BY Geo. H. Carmichael

Asso. ATTORNEY.



# UNITED STATES PATENT OFFICE.

WALTER ANDREW INGLEHART, OF TORONTO, CANADA.

## FOUNTAIN-SPITTOON.

SPECIFICATION forming part of Letters Patent No. 626,810, dated June 13, 1899.

Application filed March 25, 1898. Serial No. 675,171. (No model.)

*To all whom it may concern:*

Be it known that I, WALTER ANDREW INGLEHART, of the city of Toronto, in the county of York and Province of Ontario, Canada, have invented certain new and useful Improvements in Fountain-Spittoons, of which the following is a specification.

The object of my invention is to provide a fountain-spittoon specially adapted for dentistry which can be readily kept clean and in which the saliva-ejector and obtunder-blower may both be operated from one faucet by means of a hydraulic air-compressor located in the base of the spittoon; and it consists of an inner and an outer bowl, the inner bowl being supported on a tube rising from the center of the outer bowl, rotatable jet-arms journaled on the tube and movable between the two stationary bowls, a valve-spindle connected to the inner bowl for regulating the flow of water to the jets, and a gold-trap, with removable bottom, located immediately below the center of the bowls, and other parts and arrangement of parts hereinafter described and definitely claimed.

Figure 1 is a perspective view of my improved fountain-spittoon, showing the mode of adjustment as to height. Fig. 2 is a perspective sectional view through the center of the two bowls. Fig. 3 is a vertical section through the center of the supporting-pillar, showing the hydraulic air-compressor and obtunder blower-pipe. Fig. 4 is a vertical section through the water-inflow pipe which passes within the tube sleeved in the supporting-pillar and showing the saliva-ejector and device for operating the same.

Like letters of reference indicate similar parts in the several figures.

In Fig. 1, A is a hollow supporting-pillar on a suitable base. B is a flexible water-supply tube of sufficient length to permit of the vertical adjustment of the device. C is a tube sleeved within the hollow supporting-pillar A. D is a clamping-collar with a pinch-bolt *d* of ordinary construction for the purpose of retaining the spittoon in position after having been raised or lowered. E is a chamber for the outflow, located on the top of the tube C. F is a discharge-pipe from the bowls, leading into this chamber E, and discharge-pipe Z (shown in Fig. 3 and hereinafter referred to)

is the outflow-pipe from this chamber. G is the obtunder-pipe, which is shown also in Fig. 3, and the mode of operating the same is hereinafter described. H is a water-inflow pipe (shown also in Fig. 3) which is designed to carry down air along with the water, the air being drawn in through the saliva-ejector I and through holes *x*. (Shown in Fig. 4.) The supply of water to this pipe H is controlled by the faucet K, which admits water thereto by means of the faucet-pipe J, which is sleeved within the pipe H. An important feature in my invention is that the water admitted by means of this faucet K operates the saliva-ejector I and the obtunder-pipe G, so as to create a vacuum and an air-blast, as may be desired. L is a faucet or tap used for drinking purposes. These two faucets are connected by means of the branch pipe M. N is a bowl-supporting pipe depending from the branch M and connected with the flexible water-supply tube B. At the lower end of this pipe N there is a jet-pipe O, which conveys the water from the water-supply tube for the purpose of operating rotatable jet-arms T, hereinafter more specifically referred to. P is the outer bowl, in the bottom of which are formed drain-holes *p* for the purpose of passing the water through from the upper bowl down into the gold-trap W and thence out by the discharge-pipe F.

These parts are shown in Fig. 2. Q is an inner bowl which has formed in its bottom the drain-holes *q*. It has also under these drain-holes a threaded collar *q'*, which is designed to screw onto a tube R, which is formed on and rises from the center of the outer bowl. *q''* is a valve-spindle formed on the bottom of the inner bowl Q, so that by rotating the inner bowl Q on the tube R the valve-spindle may be raised or lowered, so as to regulate the inflow of water supplied to the rotatable jet-arms T. *r* (shown in heavy black lines) is a hard-rubber bushing fitted onto the tube R. The collar S, from which the rotatable jet-arms T spring, is sleeved on the tube R and bears against the hard-rubber bushing *r*, which prevents the squeaking or unpleasant sound which often accompanies the movement of the rotatable jet-arms. *t t'* are jets facing in opposite directions, so that when the water squirts or passes through the same causes the



jet-arms to rotate in the well-known manner. U is a flanged collar which is fitted over and covers the tops of the inner and outer bowls as well as the jets  $t$   $t'$ , which move around under the same when the device is being operated. V is a drain-off chamber formed below and connected to the bottom of the outer bowl P, in which bottom there is a circular opening leading into the drain-off pipes  $w$ , located within the gold-trap W. This pipe  $w$  does not reach to the bottom of the gold-trap chamber, so that the waste water which passes from the bowls and which possibly may contain particles of gold is caused to pass through this pipe  $w$  and deposit any small particles of gold in the bottom of the gold-trap W before the water is finally discharged through the discharge-pipe F. W' is a removable bottom screwed onto the gold-trap W.

In Fig. 3 is shown the device whereby the saliva-ejector and obtunder-blower are operated. X', in combination with the tube C, forms the annular air-compressing chamber X''. By referring to Fig. 4 it will be seen that when the water from the water-supply tube is permitted to pass down into the inflow-pipe H through the faucet-pipe J by manipulating the faucet K the water draws down with it the air through the saliva-ejector I and through the holes  $x$  formed in the cap A'. The water and air are thus forced down into the chamber X at the base of the device, and the air which becomes freed from the water gathers in the condensed form within the air-chamber. This compressed air then finds its way upwardly and through the obtunder blower-pipe G, (shown in Figs. 1 and 3,) and it may be carried to the spot on which the air is intended to impinge by means of a flexible pipe or otherwise. The water passing down through the pipe H rises up through the center and through the space surrounding the drain-off pipe Y, and rising up to the top of this pipe it flows downwardly through the same and is finally discharged from the device. Into this drain-off pipe Y there is also conducted the outflow-pipe Z, which proceeds from the outflow-chamber E, hereinbefore referred to, and which carries off the waste water from the bowls.

In Fig. 4 there is seen more in detail the method of drawing the air in through the saliva-ejector, as well as through the holes formed in the cap or collar A'. As shown in the drawings, the air would be drawn both through the holes  $x$ , formed in the cap, as well as through the saliva-ejector pipe I. It will be seen that the holes  $x$ , formed in the cap A', are immediately opposite to the space which leads to the holes  $b$ , formed in the top of the pipe H. By screwing the cap A' on the tube H the hole  $x$  is lowered and the top of the cap becomes seated on the top of the pipe H, thus effectually closing all air-inlet in the top of the pipe. In order to increase the force of the downward jet of air and water, the

lower end of the faucet-pipe J is contracted, and this contracted end is surrounded by shoulders H', formed in the interior of the pipe H. In this way a strong jet of water is caused to pass downwardly into the pipe H and to draw with it the air from the outside in the manner already indicated.

It will thus be seen that I have produced a fountain-spittoon in which the rotatable arms carrying the water-jets move between the inner and outer bowls, which bowls are stationary. I have also provided means for regulating the flow of water to these jets and have also combined in the one device and workable by means of one faucet a means for operating a saliva-ejector, as well as for operating an obtunder-blower.

What I claim as my invention is—

1. In a fountain-spittoon, an inner and an outer bowl, in combination with a revolving support having attached thereto supply-tubes to carry water to the inner bowl, substantially as described.

2. In a fountain-spittoon, the combination of a fixed inner and outer bowl, spaced apart, a revolving support mounted between the bowls and carrying supply-tubes extending up between the bowls, the ends thereof being curved inward over the inner bowl, a main supply-pipe communicating with the revolving support, and a discharge-pipe communicating with the inner bowl, substantially as described.

3. In a fountain-spittoon, the combination of a supply-pipe having mounted thereon a spindle with a bowl, a revolving support carrying tubes whose ends are curved inwardly over the bowl, and a discharge-pipe communicating with the bowl, substantially as described.

4. In a fountain-spittoon, an outer bowl, and a tube fixed on and rising from the center of said bowl, in combination with an inner bowl supported on said tube, rotatable jet-arms provided with a collar sleeved on the said tube and movable in the space between the inner and outer stationary bowls, substantially as specified.

5. In a fountain-spittoon, an inner and an outer bowl, in combination with a revolving support having attached thereto, supply-tubes to carry water to the inner bowl, and a valve for controlling the supply of water to the supply-tubes and adapted to be operated by manually turning the inner bowl, substantially as specified.

6. In a fountain-spittoon, the combination of an inner and an outer bowl, a tube rising from the center of the latter, a collar sleeved on said tube and carrying rotatable jet-arms arranged in the space between said bowls and to discharge into the inner bowl, and a bushing intermediate the said tube and collar, substantially as specified.

7. In a fountain-spittoon, the combination of an inner and an outer bowl, a tube formed



on and rising from the center of the latter, a collar sleeved on said tube and carrying rotatable jet-arms arranged in the space between the said bowls and to discharge into the inner bowl, and a hard-rubber bushing intermediate the said tube and collar, substantially as specified.

8. In a fountain-spittoon, the combination of an outer bowl provided with drain-holes, a threaded tube rising from the center of the said bowl, an inner bowl also having drain-holes, a threaded collar formed on the bottom of the inner bowl and adapted to engage with the thread formed on the said tube, means for supplying water through the tube to actuate the jet-arms; and a valve-spindle

at the bottom of the inner bowl and entering the said tube to regulate the supply of water to the jet-arms, substantially as described.

9. In a fountain-spittoon, the combination of a bowl, a revolving support having a series of supply-pipes whose end portions are bent inwardly over the said bowl and which are rotated by the force of the water discharged thereby, and a discharge-pipe also connected to the said bowl, substantially as described.

Toronto, Canada, March 15, 1898.

WALTER ANDREW INGLEHART.

Witnesses:

JOHN G. RIDOUT,  
A. M. NEFF.