C. E. RITCHEY.

DENTAL SPITTOON.

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942,931. **Patented Dec. 14, 1909.**

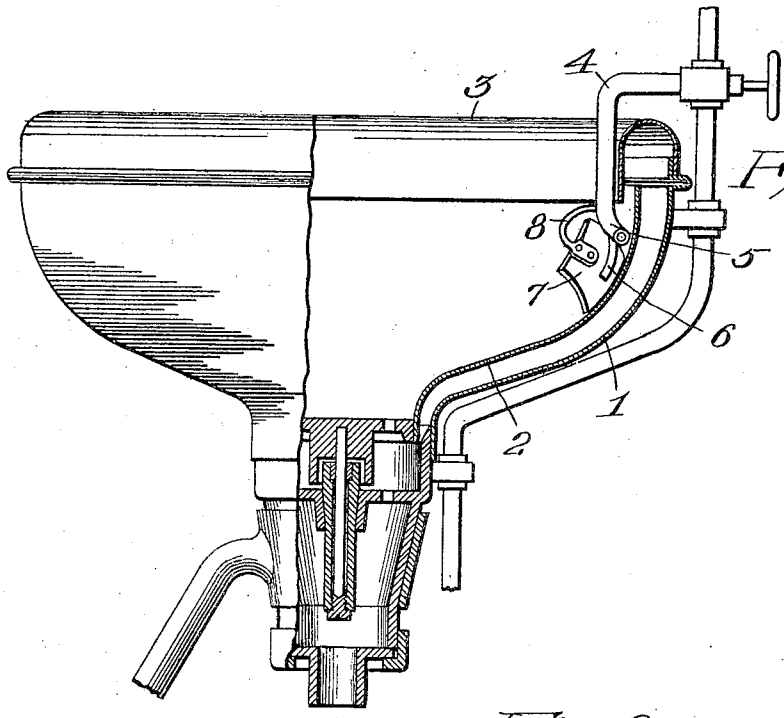


Fig. 1.

Fig. 3.

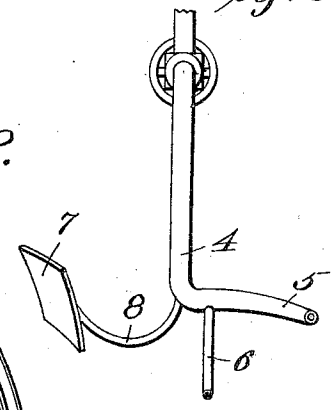
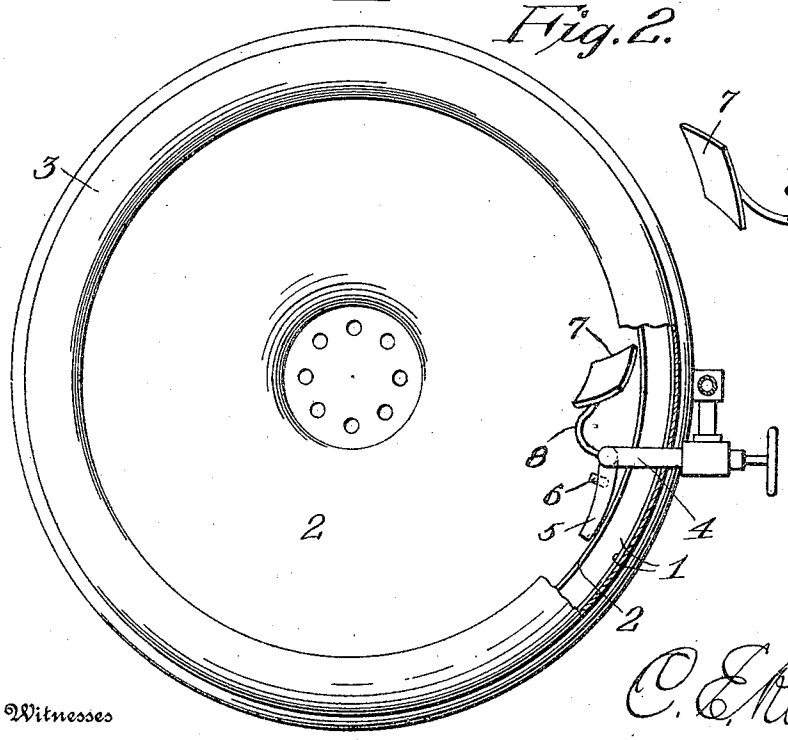


Fig. 2.



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DENTAL SPITTOON.

942,931. Specification of Letters Patent. Patented Dec. 14, 1909.

Application filed October 10, 1908. Serial No. 457,178.

To all whom it may concern:

Be it known that I, CARL E. RITCHEY, a citizen of the United States, residing at New London, in the county of Henry and State of Iowa, have invented certain new and useful Improvements in Dental Spittoons, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in dental spittoons or cuspidors.

One object of the invention is to provide an improved means for hastening the discharge of saliva and other substances from the revolving sheet of water covering the inner surface of the bowl of spittoons of this character.

Another object of the invention is to provide an automatic governing device for regulating the speed of the inner rotating bowl under varying water pressure and to also assist in the rapid discharge of saliva and other substances from the bowl.

With the above and other objects in view, as will hereinafter more fully appear, the invention consists in the construction, combination and arrangement of devices hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a view partly in section and partly in elevation of a well known form of dental spittoon having the invention applied thereto; Fig. 2 is a top plan view of the same with parts broken away and in section; and Fig. 3 is a detail view of the water injector or supply pipe showing the invention applied thereto.

In the drawings 1 denotes the outer or stationary bowl of the spittoon or cuspidor, 2 the inner revoluble bowl of the same, 3 a cap or rim preferably removably fitted to the outer bowl and adapted to overhang the inner bowl, and 4 denotes a valve controlled water supply pipe having a nozzle 5 which acts as an injector. Said pipe 4 is carried by a suitable fixture and overhangs the rim 3, its nozzle 5 being arranged within the upper part of the inner bowl 2 in a downwardly inclined or oblique position in order to so discharge the water that the bowl 2 will be rotated by the same and a thin spirally whirling sheet of water will be maintained upon the inner surface of said bowl.

In spittoons of this character the whirling sheet of water covering the inner surface of the inner bowl frequently maintains saliva and other offensive or objectionable matter a considerable time within the bowl because of the whirling movement of the water, and in order to hasten the discharge of such matter, the invention contemplates a water discharge pipe 6 or equivalent means for directing a jet of water inwardly in a radial direction across the sheet of whirling water in the bowl 2 so that the saliva and similar matter will be carried directly to the center of the bowl and pass out of its discharge in the bottom of the same. Said means 6 is preferably in the form of a small pipe inclined downwardly and inwardly and projecting from the water supply pipe 4 in rear of its nozzle 5. Its use effectively hastens the discharge of saliva and other objectionable matter from the cuspidor and thereby renders the latter more sanitary.

In order to automatically govern or regulate the speed of the revolving inner bowl under varying water pressure and to assist the transverse jet of water discharged from the pipe 6 in hastening the removal of saliva from the spittoon, an improved governing plate or blade 7 is suitably arranged in the upper portion of the inner bowl 2 in rear of the water injector or supply pipe. Said plate is so arranged and supported that one edge is disposed close to but out of contact with the inner surface of the bowl 2 and so as to be struck by the outer or upper portion of the whirling or rotating sheet of water within the bowl. Said water thus striking the plate will retard or break the rotary movement of the bowl, which movement, it will be understood, becomes more rapid as the pressure of the water discharged from the injector increases, it being further understood that as the speed of the bowl increases the sheet of water will be thrown outwardly by centrifugal force and will, therefore, rise in the bowl 2 and strike full against the plate 7. When the bowl is operating properly the outer or upper edge of the sheet of water barely contacts the governing or breaking plate 7 so that the latter becomes effective upon an increase in the water pressure and, consequently, acts automatically to control the speed of the revolving inner bowl. Said plate is inclined obliquely in a direction opposite to that of the inclination of the injector nozzle 5 so that as the water strikes it it will direct the same inwardly in a radial direction across

the bowl to the outlet in the bottom of the latter, thereby hastening and facilitating the discharge of the water, as well as the saliva and other matter in the bowl and assisting the jet from the pipe 6. The plate 7 is carried by an arm 8 projecting from the water supply pipe 4, as illustrated in the drawings.

Having thus described the invention what is claimed is:

In a dental spittoon, the combination of a stationary outer bowl, a revoluble inner bowl having an outlet in the center of its bottom, a rim carried by the outer bowl and overhanging the inner one, a water supply pipe overhanging said rim and having an obliquely arranged injector nozzle for discharging a jet of water circumferentially in the inner bowl to rotate the latter and maintain a whirling or revolving sheet of water upon its inner surface, a longitudinally curved and downwardly and inwardly extending discharge pipe projecting laterally from said injector nozzle and in communication therewith, whereby it will continuously discharge a jet of water downwardly and inwardly in a radial direction toward the center of the inner bowl and across the whirling sheet of water in the same, to hasten the discharge of saliva and other matter upon said sheet of water, a curved arm carried by said water supply pipe and a governor plate fixed to said arm and disposed in rear of the injector nozzle, said governor plate being inclined downwardly and obliquely in a direction opposite to that of the nozzle and to the rotary movement of the whirling sheet of water, said governor plate being substantially inoperative under normal conditions but becoming effective to retard the rotary movement of the water upon an increase of water pressure and thereby govern the rotation of the bowl with respect to such variations in water pressure and to also direct the water contacting with the same inwardly in a substantially radial direction toward the center and outlet of the bowl.

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

CARL E. RITCHEY.

Witnesses:

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