

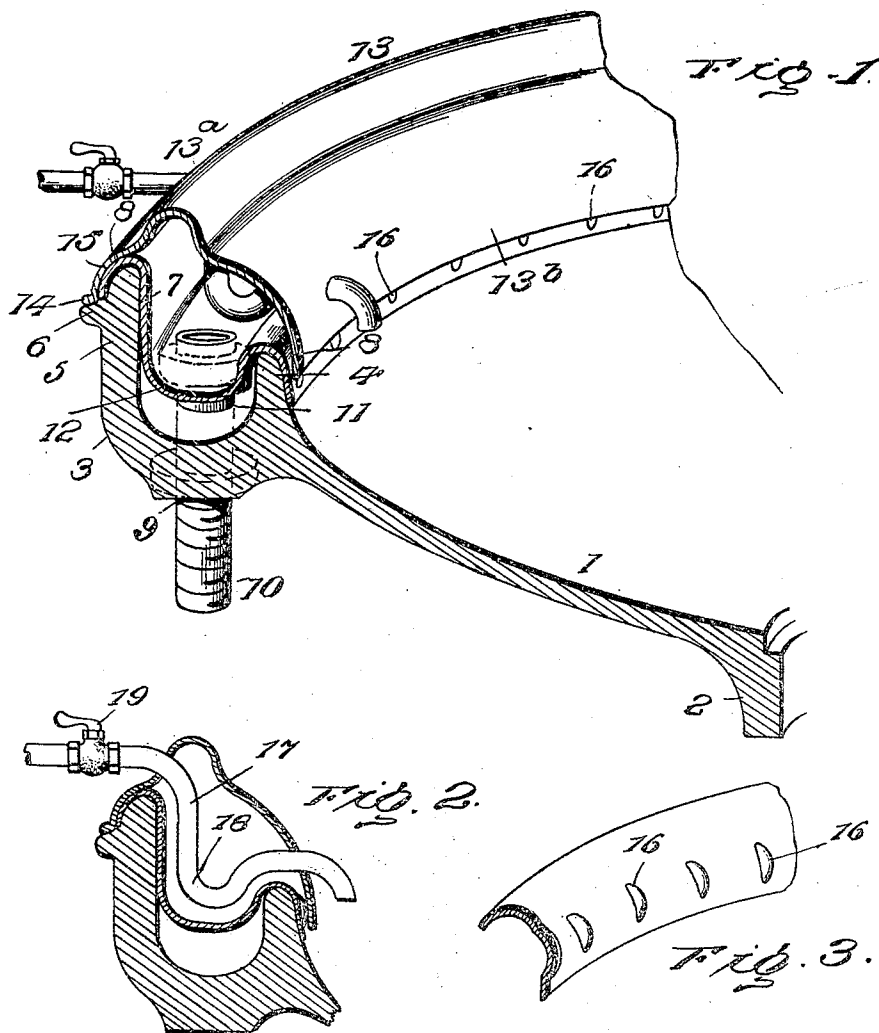
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J. W. COOPER

CUSPIDOR.

APPLICATION FILED MAY 17, 1905.



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JOHN W. COOPER, OF SOMERVILLE, MASSACHUSETTS.

CUSPIDOR.

No. 801,221.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN W. COOPER, a citizen of the United States, residing at Somerville, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Cuspidors, of which the following is a specification.

This invention relates to improvements in that class of flushing-cuspidors commonly employed by dentists and embodying a bowl having an annular water-trough with means for deflecting the flushing fluid so as to thoroughly cleanse the interior of the bowl.

The invention resides in the special form of saliva-ejector-pipe connection with the trough and also in the provision of a peculiar form of deflector for the bowl of the cuspidor in connection with the water-ring customarily provided for the trough, the construction being mainly conducive to simplicity and cheapness.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings.

While the invention may be adapted to different forms and conditions by changes in the structure and minor details without departing from the spirit or essential features thereof, still the preferred embodiment thereof is shown in the accompanying drawings, in which—

Figure 1 is a vertical sectional view, partially broken away, of a cuspidor embodying the invention. Fig. 2 is a vertical sectional view bringing out more clearly the saliva-ejector pipe and the spacing means between the water-ring and the deflector-ring. Fig. 3 is a broken perspective view of the water-ring from which the projections are pressed.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

In general contour the form of the bowl 1, which ordinarily comprises the body of the cuspidor, is similar to many of those at present in use, being provided at its lower portion with a hollow boss with which a drain-pipe may be connected to form an outlet for material which may be received by the receptacle and also the flushing fluid. At the upper outer portion of the bowl 1 the latter is formed with the usual trough 3, the inner wall 4 of

said trough being somewhat lower than the outer wall 5 thereof. The outermost wall 5 is provided with a bead 6 upon the outer side thereof near the upper edge. A water-ring 7 is received in the annular trough 3, this ring being formed by a spun plate preferably, the general form of the ring 7 conforming with the curvature of the interior of the trough 3, so that the body of the ring may be received therein. The outer and inner edge portions of the ring 7 are rolled, as indicated at 8, the rolled portions overlapping the upper edges of the inner and outer walls of the trough 3. The bottom of the trough 3 is provided with a vertical opening through which passes a tube 9, threaded at its lower end, as shown at 10, the upper portion of said tube passing through a boss 11 at the bottom of the trough. The bottom of the water-ring 7 is provided with an opening through which the upper extremity of the tube 9 passes, and said tube is adapted to be suitably coupled with a water-supply in order that the flushing liquid may have ready access to the trough 3 aforesaid. A rubber gasket 12 is interposed between the boss 11 and the under side of the water-ring 7, said gasket surrounding the tube 9, above described.

The liquid which is introduced into the cuspidor for flushing the same is deflected so as to thoroughly cover the interior surface of the bowl 1, and for this purpose a deflector 13 is utilized. The deflector 13 closes the upper portion of the trough 3 and consists of a plate of a form somewhat similar to the ring 7, said plate being spun or otherwise formed in the actual manufacture thereof. The deflector 13 is of annular formation, so as to entirely surround the trough 3, and consists of an outer curved portion 13^a and an inner curved portion 13^b. The outer curved portion 13^a extends over the outer edge portion of the wall 5 of the trough 3 and over the outer rolled portion 8 of the water-ring 7. The outer edge of the portion 13^a of the deflector 13 is formed with a bead 14 and rests directly upon the bead 6 of the trough 3, and this deflector 13 is secured to the water-ring 7 at the outermost portions of these parts which are in contact, solder or similar securing means being utilized in order to form a water-tight joint. The point of jointure of the parts 7 and 13 is indicated at 15. The inner edge of the deflector 13 overlaps for a short distance the inner rolled portion 8 of the water-ring 7, and said inner edge of the deflector is spaced

from the water-ring in order that the flushing liquid introduced into the trough may pass to the bowl 1 through the space between the innermost edge portions of the parts 7 and 13. The space between the parts 13 and 7, however, is just sufficient to permit the liquid passing therethrough to enter the bowl 1, said liquid being thoroughly spread as it is forced through the spaced portions of the ring and deflector. The inner rolled portion 8 of the water-ring causes the water or other liquid passing into the trough to be thrown against the inner curved portion 13^b of the deflector 13, and the foregoing action of the liquid separates the same or spreads it over the entire inner surface of the portion 13^b, so that the interior of the bowl 1 will be effectively flushed as the liquid passes thereto. In order to space the water-ring 7 from the deflector 13 in such a manner that the latter is rigidly positioned at its inner edge with reference to the water-ring, the inner rolled edge portion 8 of the ring 7 is provided with a plurality of projections 16, which are preferably pressed therefrom in the actual manufacture of the article, and these projections extend outwardly from the ring into contact with the under side of the innermost curved portion 13^b of the deflector 13. The curved portion 13^b is thus spaced equally its entire circumference with reference to the ring 7, so that the water flushed into the bowl 1 will distribute evenly over its surface.

The saliva-ejector pipe is indicated at 17 and enters the trough 3 through an opening in the outer curved portion 13^a of the deflector. The pipe 17 curves downwardly to conform with the curvature of the bottom of the trough, forming a deflected portion 18, constituting a trap, the inner end of the pipe

17 thence curving upwardly and passing through the portion 13^b of the deflector into the bowl 1. A valve 19 is carried by the outer portion of the pipe connection 17 to be operated when it is desired to flush the saliva-pipe in the customary manner. The valve is normally closed, and the deflected portion 19, forming the trap above mentioned, normally holds a certain amount of water or flushing fluid, preventing air passing to the valve. The pipe connection 17 is so disposed as to brace the deflector 13 with reference to the attachment of the latter to the trough. The connection 17 will of course be connected with the usual saliva-pipe customarily used by dentists and affords a very convenient means for the purposes thereof.

Having thus described the invention, what is claimed as new is—

1. In a flushing-cuspidor, the combination of a bowl provided with a trough, a water-ring received in the trough, a deflector for said trough having its outer portion connected with the outer portion of the water-ring, and projections between the inner portion of the deflector and the water-ring to space such portion therefrom.

2. In a flushing-cuspidor, the combination of a bowl provided with a trough, and a valved saliva-pipe connection leading to the bowl and extending across the trough, said pipe connection being deflected in the trough to form a trap.

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

JOHN W. COOPER. [L. s.]

Witnesses:

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