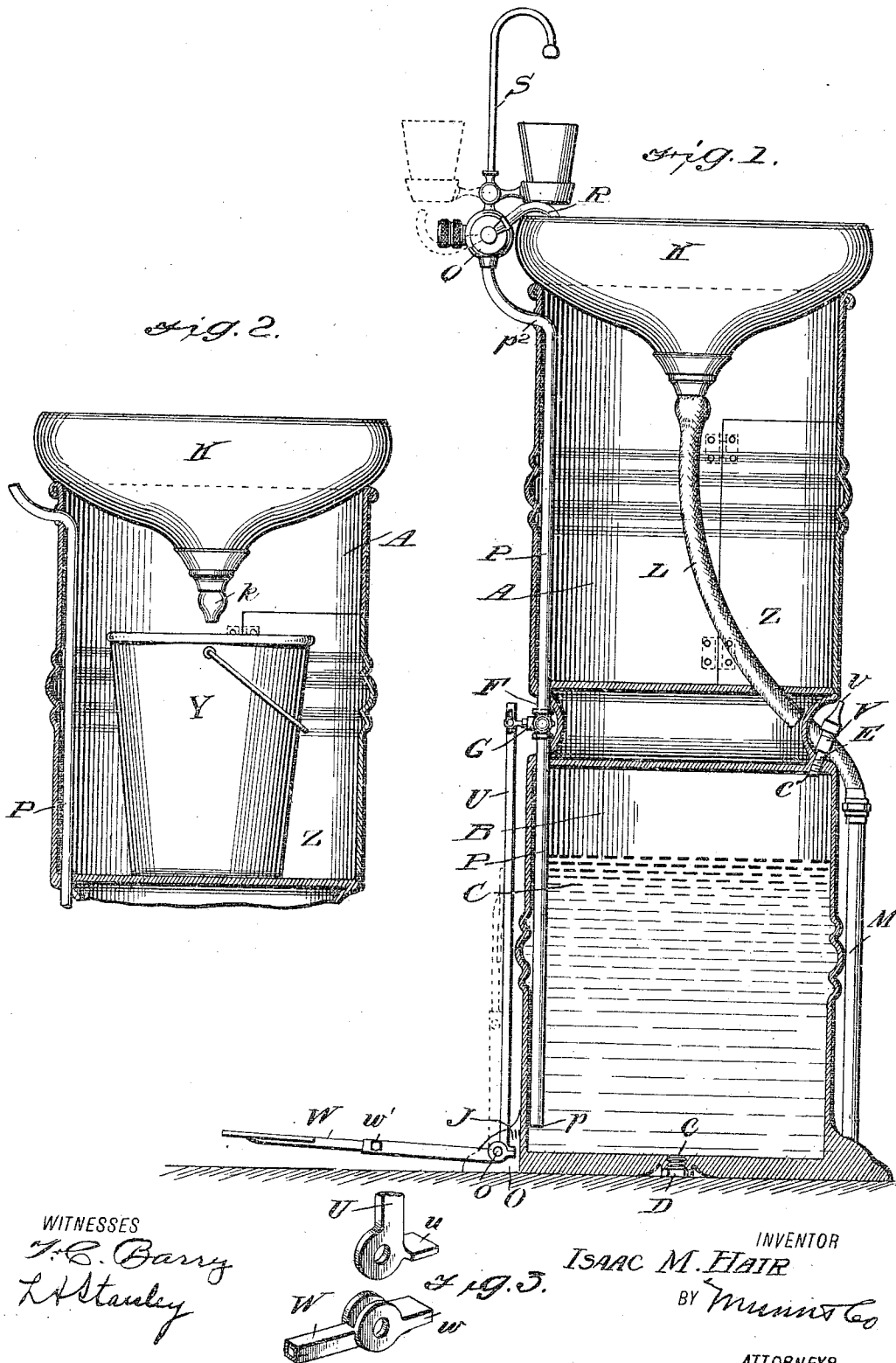


I. M. HAIR.
DENTAL CUSPIDOR.
APPLICATION FILED JUNE 17, 1909.

957,671.

Patented May 10, 1910.



WITNESSES
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ISAAC MURRAY HAIR, OF UNION, SOUTH CAROLINA.

DENTAL CUSPIDOR.

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Specification of Letters Patent.

Patented May 10, 1910.

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To all whom it may concern:

Be it known that I, ISAAC M. HAIR, a citizen of the United States, and a resident of Union, in the county of Union and State of South Carolina, have made certain new and useful Improvements in Dental Cuspidors, of which the following is a specification.

My invention relates to improvements in portable dental cuspidors, and it consists in the constructions, combinations, and arrangements herein described and claimed.

An object of my invention is to provide a device which may be flushed by a stream of water operated by compressed air.

A further object of my invention is to provide a device, in which the flushing operation may be performed through the instrumentality of a foot lever attached to the device, thereby permitting the dentist to use both hands in other work.

A further object of my invention is to provide a compact outfit for use in dental offices that are not supplied with running water, which affords the utility of similar devices that are connected directly with the city water systems.

Other objects and advantages will appear in the following specification, and the novel features of the device will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawings in which:

Figure 1 is a central, vertical section through the device; Fig. 2 is a modified form of the waste receptacle, and, Fig. 3 is an enlarged detail view of the hinged joint of the foot lever.

Referring now to Fig. 1, I have shown therein, a tank which is preferably made of metal and which consists of two compartments, an upper compartment A and a lower compartment B. The lower compartment B is designed to hold water C. This compartment has two openings, one *c* in the bottom, into which a plug D is screwed and the other, *c'* at the top into which the plug E is screwed. The latter member bears a valve V at its upper end, having a cap *v*, the valve and cap being such as is found in an ordinary bicycle tire, although any form of valve suitable for the purpose might be used. The valve communicates with the interior of the compartment B, through the opening in the plug E.

Between the lower compartment B and the upper compartment A is an annular re-

cessed portion F. The valve V is located in this recessed portion on one side of the tank, while on the other side is a spring actuated cock G, which controls a pipe P. The latter extends from a point *p*, within the bottom compartment B, to a point *p'*, at the top of the upper compartment A, from whence it passes outwardly to the connections Q, leading to the outlet pipe R and to the spigot S.

Arranged to rest on the top of the upper receptacle A is the bowl K of the cuspidor. This has a central projection *k*, to which the flexible tube L may be attached. The latter passes downwardly through the compartment A and the recessed portion F, and connects with the stationary pipe M, leading to a dry-well, cess-pool or other place for the disposal of sewage.

Pivotally secured to a bracket O is the foot lever W, by which the flow of water through the pipe P is controlled. This foot lever is pivotally connected at *o* by a joint like that shown in Fig. 3. An upright arm U, is also pivoted at *o*. The lever W and the arm U have rearwardly projecting flanges *u* and *w*, respectively, arranged for engagement when the foot lever is depressed.

In Fig. 2, I have shown a modified form, in which the upper receptacle A may be provided with a pail Y, into which the contents of the bowl K may empty directly. The pail may be removed or replaced by means of the door Z.

From the foregoing description of the various parts of the device, the operation thereof may be readily understood. The compartment B may be filled by removing the plug E and the valve V. A funnel may then be inserted in the opening *c'* and the water run in. The plug may then be replaced, the cap removed from the valve and air pumped in the space above the water. Now when the foot lever W is depressed, the arm U is forced outwardly, thereby opening the spring stop cock G, to which it is connected. The water rushes up the pipe P and through the flushing pipe R, into the bowl K. When the pressure of the foot lever is relieved, the arm U is retracted by means of the spring J and the stop cock G is therefore closed, shutting off the water and preventing a further flow.

The device described may be used either as a stationary device, or as a portable one. The foot lever W may be extended by un-

loosening the set screw *w'*. It may be also swung up out of the way in the manner indicated in dotted lines in Fig. 1. The plug D may be removed and the lower compartment B cleaned at any time.

I claim:—

1. A dental cuspidor comprising a water tank, arranged to contain air under pressure, a bowl, a pipe leading from said tank to said bowl, a spring-actuated valve in said pipe and a foot lever for operating said valve.

2. A dental cuspidor comprising a tank having an upper and a lower compartment, means for admitting air and water into said lower compartment, a bowl arranged to project into said upper compartment, means adapted to receive the contents of said bowl, a pipe leading from said lower compartment through said upper compartment and arranged to deliver water into said bowl, a spring actuated valve for controlling said pipe, a foot lever pivoted to said tank, an upright arm pivoted to said tank, and arranged to be operated by said foot lever and connections between said arm and said

spring-actuated valve for operating the latter.

3. A dental cuspidor comprising a tank having an upper and a lower compartment, and an annular recessed portion between the two, means for admitting air and water into said lower compartment, a bowl carried at the upper extremity of the upper compartment, a pipe disposed within said lower and upper compartments and having a portion extending through said annular recessed portion, a spring-actuated valve for controlling said pipe disposed in said annular recess, connections between said pipe and the bowl for flushing the latter, a foot lever and an arm pivoted to said tank, connections between said arm and said spring-actuated valve, a projection on said arm arranged to be engaged by said foot lever for actuating the arm, said foot lever being arranged to swing upwardly against said arm in an inoperative position.

ISAAC MURRAY HAIR.

Witnesses:

H. B. HAIR,

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