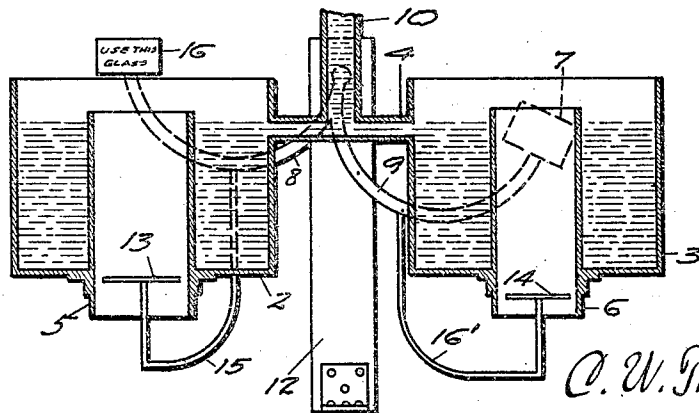
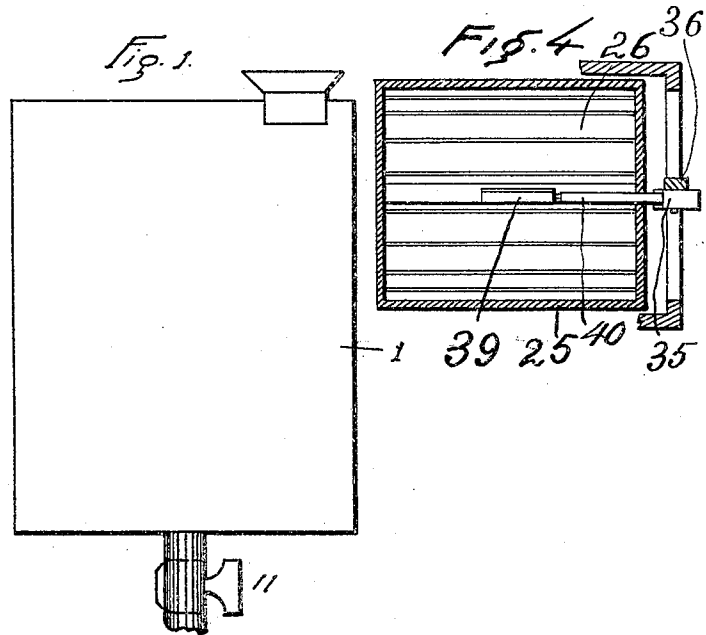
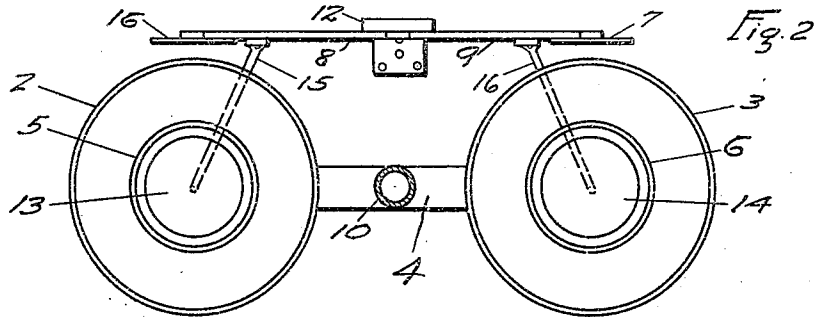


C. W. THORNTON.
 SANITARY CLEANSING AND INDICATING DEVICE FOR DRINKING VESSELS.
 APPLICATION FILED FEB. 2, 1910.

959,970.

Patented May 31, 1910.

2 SHEETS—SHEET 1.



Witnesses
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Fig. 5.

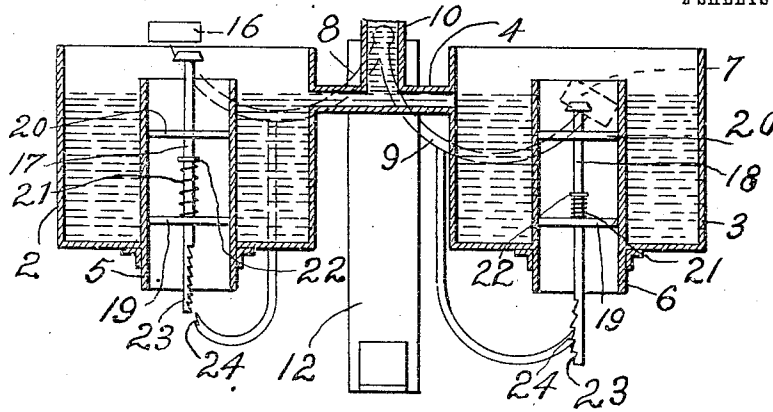


Fig. 3.

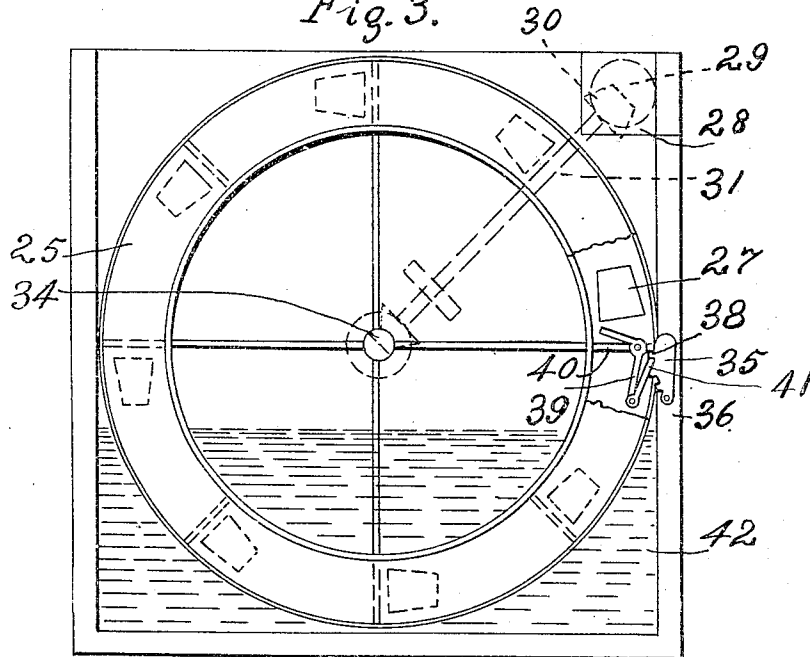
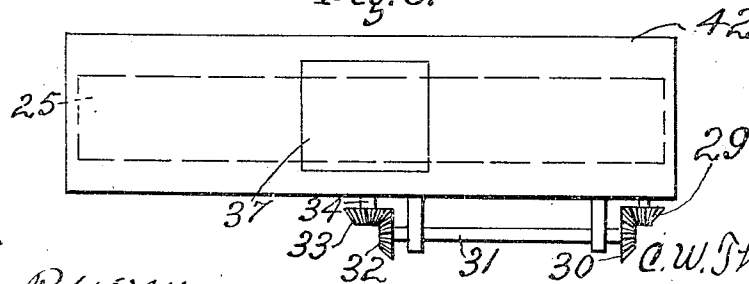


Fig. 6.



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UNITED STATES PATENT OFFICE.

CHARLES W. THORNTON, OF DALHART, TEXAS.

SANITARY CLEANSING AND INDICATING DEVICE FOR DRINKING VESSELS.

959,970.

Specification of Letters Patent.

Patented May 31, 1910.

Application filed February 2, 1910. Serial No. 541,660.

To all whom it may concern:

Be it known that I, CHARLES W. THORNTON, a citizen of the United States, residing at Dalhart, in the county of Dallam and State of Texas, have invented certain new and useful Improvements in Sanitary Cleansing and Indicating Devices for Drinking Vessels and the Like, of which the following is a specification.

My invention relates to apparatus or means for cleansing vessels and at the same time indicating which vessel has been cleansed; and the object is to provide devices for cleansing or sterilizing vessels, particularly drinking vessels in public places, such as public drinking fountains, drinking cups on railway trains, and other places, and in a striking manner or determining manner warning the person as to which vessel has been cleansed.

The object of such provision is to prevent spread of disease by washing a vessel in some antiseptic solution after the vessel has been used by an afflicted person.

Other objects and advantages will be fully explained in the following description and the invention will be more particularly pointed out in the claims.

Reference is had to the accompanying drawing which form a part of this application.

Figure 1 is a vertical section of the cleansing apparatus, the tank containing the supply of the antiseptic solution, being shown in side elevation. Fig. 2 is a plan view of the cleansing apparatus. Fig. 3 is a side elevation of a cleansing vessel which is a variation from the apparatus shown in the previous views. Fig. 4 is a detail view of part of the actuating mechanism for the device shown in Fig. 3. Fig. 5 is a sectional elevation of a variation in the actuating mechanism for the apparatus shown in Figs. 1 and 2. Fig. 6 is a detail view, illustrating the gearing for driving the wheel 25.

Similar characters of reference are used to indicate the same parts throughout the several views.

The apparatus for carrying out the objects of this invention includes a tank 1 for containing an antiseptic solution. Below the tank are mounted devices for cleaning two drinking glasses or other vessels. Two cleansing vessels 2 and 3 are connected by a tube

4 so that a cleansing liquid will stand normally at the same level in both vessels or receptacles. These receptacles are open top receptacles and tubes 5 and 6 are mounted centrally in the receptacles and extended below the receptacles and extended near the tops of the vessels. Glasses or drinking vessels are to be inverted and placed down on the tubes 5 and 6 to be cleansed. Means are provided for indicating which glass or drinking vessel has been cleansed and ready for use. Signs 16 and 7 are provided to be automatically actuated by the insertion of the glasses. The signs 16 and 7 are mounted on arms 8 and 9 which are rigid with each other. The vessels 2 and 3 are connected to the tank 1 by a tubular neck 10 which is provided with a cut-off cock 11. The arms 8 and 9 are pivotally mounted in a support 12. Movable platforms 13 and 14 are mounted within the tubes 5 and 6 and are supported on arms 15 and 16 which are pivotally connected to the arms 8 and 9 respectively. The platforms 13 and 14 are or should be almost as large in area as cross-sections of the tubes 5 and 6.

The action is as follows: When a glass is placed on the tube 5, it will descend into the solution in the vessel 2 by gravity and will force liquid over the top of the tube 5 to fall on the platform 13 and enough liquid will fall on the platform 13 to cause the sign 16 to descend and the sign 7 will be forced upwardly into view. The signs 16 and 7 and the arms and connections which carry these signs should be made respectively equal to each other so that a small quantity of liquid will change the balance and cause the operation of the signs. The signs may have such words as "use this glass" or similar words or words having similar meaning printed or made thereon. The apparatus thus described will cause alternate use of the glasses. The liquid in the receptacles 2 and 3 will be thrown out gradually, but the supply will be automatically obtained from the tank 1. As soon as the liquid in tube 4 falls below the mouth of the neck 10, air will enter the neck 10 and the tank 1 and liquid will run down until the mouth of the neck is again closed. This action will occur as often as the liquid in the tube 4 becomes lower than the mouth of the neck 10. The operation of the apparatus

thus described will be a safeguard against a person using a glass until it has been sterilized.

Fig. 5 of the drawing shows a variation in the means for operating the sign instead of the platforms 13 and 14 shown in Figs. 1 and 2. Spring actuated rods 17 and 18 are mounted in the tubes 5 and 6 by means of cross bars 19 and 20. The rods 17 and 18 operate through the bars 19 and 20 and spiral springs 21 are mounted on the rods 17 and 18 between the bars 19 and collars 22. The springs 21 will normally hold the rods 17 and 18 in elevated position but when a glass is inverted over one of the rods it will press the rod down and actuate the sign in the opposite part of the apparatus. Each rod 17 and 18 has a rack 23 on the lower end thereof which rack is adapted to engage a spur 24. When the rack 23 of the rod 18 engages the spur 24 it will pull the arm 9 downwardly and elevate the arm 8. The rod 17 will in the same manner elevate the arm 9 and consequently the sign carried by the arm. The spurs 24 are carried by rods similar to the rods 15 and 16' which are pivotally connected to the arms 8 and 9.

The variation illustrated in Figs. 3, 4 and 6, includes a revolving wheel 25. This wheel is divided into compartments by partitions 26 which may be of wire and each compartment carries one glass 27. Clock gearing may be utilized to revolve the wheel 25. This gearing is inclosed in the casing 28 and actuates a beveled gear wheel 29. This gear wheel drives a beveled gear wheel 30 which is mounted on a shaft 31. The shaft 31 drives a beveled gear 32 and this gear drives a beveled gear 33 which is mounted on a shaft 34 which carries the wheel 25. The clock gearing may be wound up as any clock is wound up and would revolve the wheel 25 continuously until the gearing should be run down unless the wheel is locked. Provision is made for locking the wheel 25 against revolution when not in use. A dog 35 is pivotally mounted on the casing 36 so that it will swing in the path of the partitions 26. An opening 37 is made in the casing so that when a glass 27 is brought into view through the casing opening 37, that is, when the glass is opposite the opening in the casing, the partition 26 will engage the dog 35 on stop 38 and thus lock the wheel against revolution. The glass is then in position to be used. When the glass is replaced the lever 39 which is fulcrumed on a bar 40 will be pressed downwardly and actuate a pawl 41 pivotally connected thereto and this pawl 41 will shove the dog 35 out of the path of the partition 26 and thus unlock the wheel. After the wheel passes, the dog 35 will drop back to its normal position to catch the next partition 26.

It should have been stated above that when the glass 27 is taken from the lever 39 it will allow the pawl 41 to drop by gravity to a lower tooth in the dog 35 so that when the glass is replaced on the lever the lever will be automatically actuated and the pawl 41 will shove the dog 35 out of the path of the partition 26. As soon as the partition passes, the dog 35 will drop back to normal position to catch the next partition when it comes down to the dog. In this way the glasses are successively passed through a cleansing solution in a casing 42 and each glass is allowed time for drainage before it arrives at the opening 37.

The vessels 2 and 3 have been described as separate vessels, but it is apparent that the two vessels can be constructed as one vessel and that additional provision may be made therein for immersing additional drinking glasses to be indicated by additional signs.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is.—

1. An automatic cleaning and indicating apparatus comprising a solution containing receptacle, provision in said receptacle for immersing vessels in said solution, and indicating devices automatically actuated by the immersing of one vessel in said solution to show which vessel has been cleansed.

2. An automatic cleansing apparatus comprising solution holding members, means for holding vessels to be cleansed in said solution, and means for indicating which vessel has been cleansed.

3. An automatic cleansing and indicating apparatus comprising solution holding devices, vessel holding members in said solution, and automatically actuated indicating devices to indicate which vessel has been cleansed.

4. An automatic cleansing and indicating apparatus comprising a pair of solution containing receptacles, open vertical tubes mounted in said receptacles and projecting through the bottoms thereof, a pair of arms pivotally mounted, signs carried by said arms, and platforms movable vertically in said tubes and operatively connected with said arms.

5. An automatic cleansing and indicating apparatus comprising a solution containing receptacle, an open vertical tube mounted in said receptacle and projecting through the bottom thereof, a sign for use with each tube, and platforms movable vertically in said tubes and each platform being operatively connected with one of said signs.

6. An automatic cleansing and indicating apparatus comprising a solution containing receptacle, an open vertical tube mounted in said receptacle and projecting through the bottom thereof, a sign for use with each

tube, platforms movable vertically in said tubes and each platform being operatively connected with one of said signs, the platform of one tube being operatively connected with the sign of the opposite tube, and a tank operatively connected with said receptacle for automatically replenishing the solution in said receptacle.

In testimony whereof, I set my hand in the presence of two witnesses, this 12th day 10 of January, 1910.

CHARLES W. THORNTON.

Witnesses:

A. L. JACKSON,
J. W. STETT.