

G. H. HUTAFF.
 TUMBLER WASHING AND RINSING MACHINE.
 APPLICATION FILED OCT. 10, 1911.

1,153,228.

Patented Sept. 14, 1915.

2 SHEETS—SHEET 1.

Fig. 1.

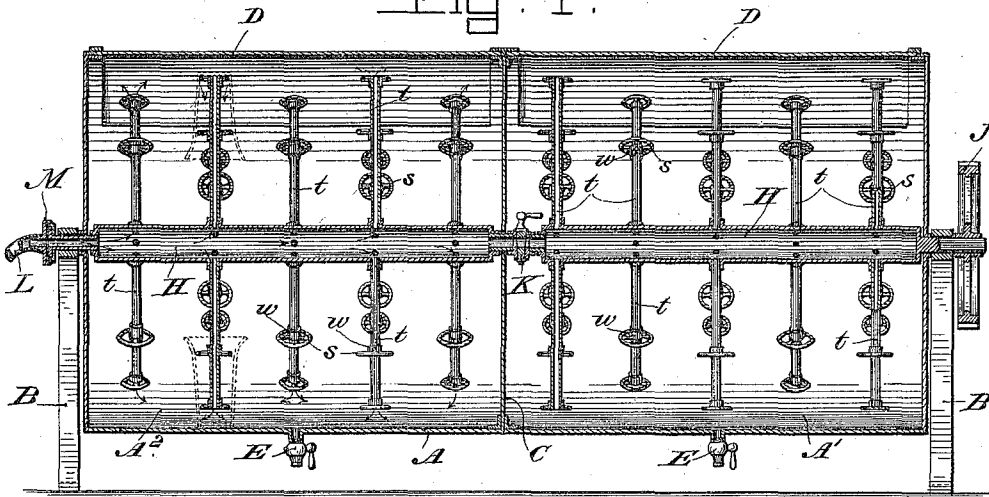


Fig. 2.

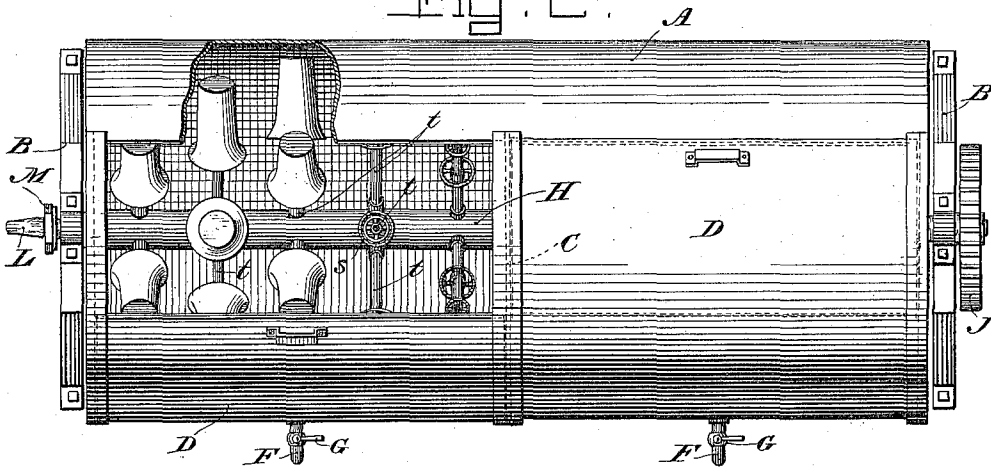
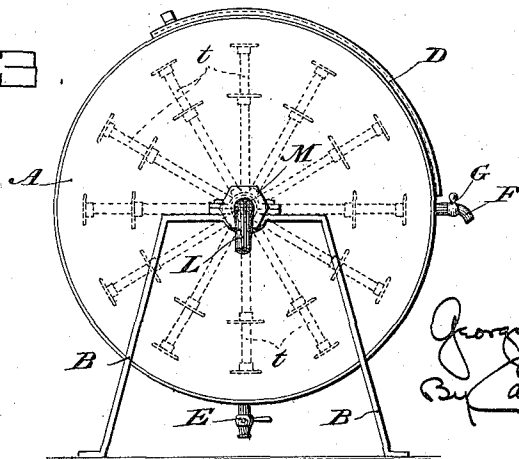


Fig. 3.



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2 SHEETS—SHEET 2.

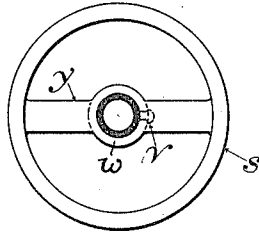


Fig. 4.

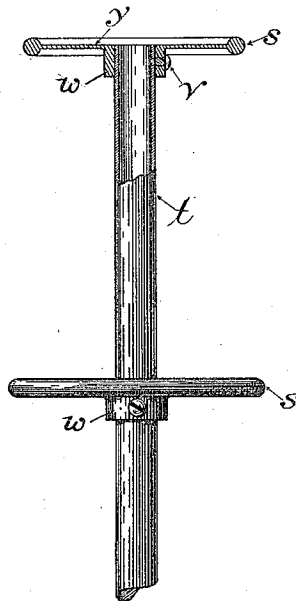


Fig. 5.

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GEORGE H. HUTAFF, OF WILMINGTON, NORTH CAROLINA.

TUMBLER WASHING AND RINSING MACHINE.

1,153,228.

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To all whom it may concern:

Be it known that I, GEORGE H. HUTAFF, a citizen of the United States, residing at Wilmington, in the county of New Hanover and State of North Carolina, have invented or discovered certain new and useful Improvements in Tumbler Washing and Rinsing Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to machines for washing and rinsing tumblers and the like and has for its general object to provide a machine which will thoroughly and efficiently cleanse the tumblers or other articles, whose operation is continuous, and which is readily adaptable for operation upon tumblers and the like of various sizes and forms. These and other objects of the invention, together with means whereby the same may be carried into effect, will best be understood from the following description of one form or embodiment thereof illustrated in the accompanying drawings. It will be understood, however, that the construction described and shown has been chosen for illustrative purposes merely, and that the invention may be embodied in other forms without departing from the spirit and scope thereof.

In said drawings: Figure 1 is a longitudinal vertical section of the machine. Fig. 2 is a plan view thereof. Fig. 3 is an end elevation. Fig. 4 is an enlarged end view of one of the tumbler carrying arms. Fig. 5 is a side view thereof partly broken away.

For convenience of description the articles upon which the machine is designed to operate are herein referred to as "tumblers." It will be obvious, however, that the machine will be equally useful for the purpose of washing other wide mounted articles, such, for example, as cans, jars, cups, etc., and the term "tumbler" as herein used is to be understood to include such other articles of like character.

The machine comprises a tank A, preferably of cylindrical form and supported in stationary position upon suitable frame members B. Said tank is divided by a partition C into two compartments, namely, a soaking or washing compartment A' and a rinsing compartment A², each of said compartments having an open top closed by a suitable cover D. Each compartment is provided at the bottom with a drain cock E

and above the bottom with an outlet F preferably provided with a cock G.

Journalled in the frame members B and in the end walls and partition C of the tank A, and passing through both of the compartments A' and A², is a hollow rotary shaft H. Said shaft may be provided with any suitable means for rotating the same, either by hand or by power, such means being indicated in the construction shown by the gear J. The shaft H is provided within both of the compartments A' and A² with a plurality of hollow radial arms *t*, said arms communicating at their inner ends with the hollow interior of the shaft H and being open at their outer ends. The arms *t* extend into proximity to a cylindrical guide wall which, in the construction shown, is the outer wall of the tank. Adjacent the point where the shaft H passes through the partition C said shaft is provided with a valve K.

L denotes a water or other fluid supply pipe connected with the shaft H by a swivel coupling M.

At their outer ends the arms *t* are provided with tumbler holding devices comprising rings *s* supported by arms *y* from collars *w* slidable on the arms *t* so as to be movable in and out thereon or removable therefrom, said collars being held in adjusted position on said arms by set screws *v*. Two rings *s* are preferably provided on each of the arms *t*, arranged to engage the tumbler, adjacent the top and bottom, respectively. The rings *s* are readily detachable from the arms *t* in order to permit the substitution of other rings of different sizes and are adjustable in and out upon said arms. By this arrangement it will be seen that the tumbler holding devices may be made to accommodate tumblers varying considerably in form and size.

The operation of the machine is as follows: The drain cocks E are closed and the cocks G, at least that corresponding to the compartment A², opened. The valve K is ordinarily closed and the compartment A' filled with a suitable washing solution or disinfectant. Clear water or other rinsing fluid from a suitable source of supply enters the interior of the shaft H through the pipe L and joint M and passes through the arms *t* to the compartment A², from which it overflows through the outlet F. The shaft H is then slowly rotated. As the outer ends

of the arms *t* come opposite the open top of the compartment A' the tumblers are placed thereon and are carried thereby through the solution in said compartment, said tumblers
 5 being retained on said arms, when said arms are below the axis of the shaft, by engagement with the cylindrical guide walls of the tank. After the tumblers have been sufficiently cleansed by the solution in the com-
 10 partment A' they are removed from the arms *t* in this compartment and placed in a corresponding manner upon the arms *t* in the rinsing compartment A². During the passage of the tumblers through this com-
 15 partment the water issuing from the ends of the arms *t* continuously enters and flows from the tumblers into the tank, and by reason of the fact that the outlet F is above the bottom of the tank a considerable body of
 20 water will be retained in the compartment A², so that the tumblers will be thoroughly rinsed both inside and out in continuously running water.

If desired the valve K may be opened and

both compartments used with running water 25 as above described in connection with the compartment A².

Having thus described my invention I claim and desire to secure by Letters Patent:

In a machine for washing tumblers and 30 the like, in combination, a tank having a circular guide wall, a horizontal rotary shaft within said tank and arranged longitudinally thereof, hollow radial arms extending from said shaft into proximity to said wall, 35 and a plurality of tumbler holding and positioning rings secured to each of said arms adjacent the outer ends thereof and independently adjustable thereon, said rings being spaced apart from each other so as to 40 fit within a tumbler at separated points.

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

GEO. H. HUTAFF.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."