

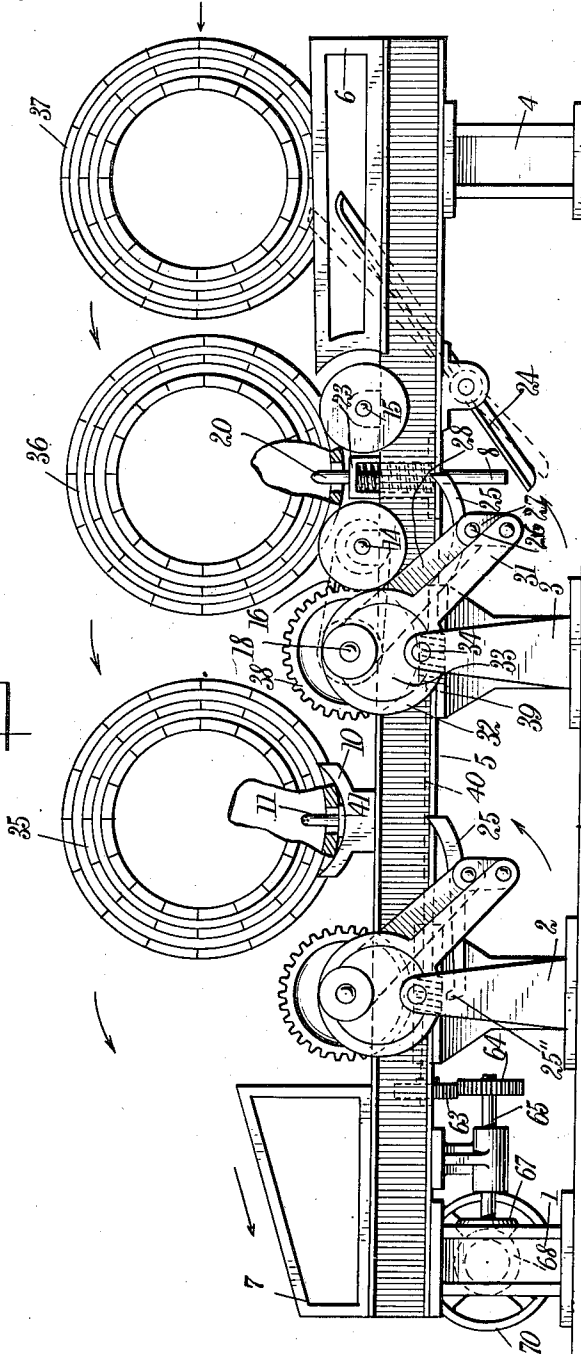
H. REININGER.
 BARREL SOAKING AND RINSING MACHINE.
 APPLICATION FILED FEB. 10, 1912.

1,046,856.

Patented Dec. 10, 1912.

2 SHEETS—SHEET 1.

FIG. 1.



WITNESSES

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INVENTOR

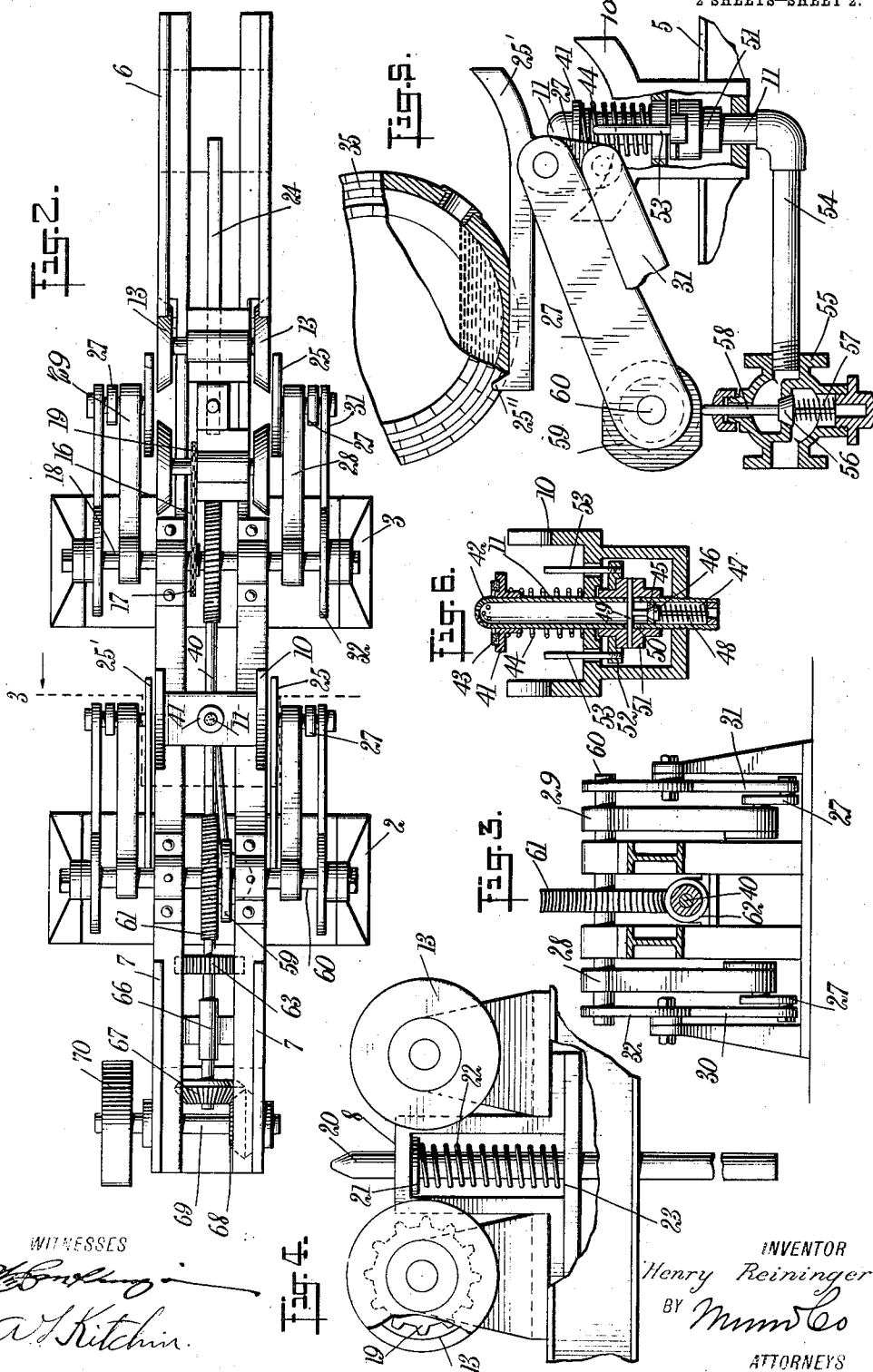
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2 SHEETS—SHEET 2.



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HENRY REININGER, OF NEW ORLEANS, LOUISIANA.

BARREL SOAKING AND RINSING MACHINE.

1,046,856.

Specification of Letters Patent.

Patented Dec. 10, 1912.

Application filed February 10, 1912. Serial No. 878,909.

To all whom it may concern:

Be it known that I, HENRY REININGER, a citizen of the United States, and a resident of New Orleans, in the parish of New Orleans and State of Louisiana, have invented a new and Improved Barrel Soaking and Rinsing Machine, of which the following is a full, clear, and exact description.

This invention relates to improvements in washing apparatus, and particularly to means for cleaning barrels or kegs.

The object in view is to provide a new and improved apparatus which will quickly and continuously handle barrels, kegs or the like, for washing the same automatically after the same have been once fed into the machine.

Another object of the invention is to provide an improved means for receiving and spraying a barrel, the means being such as to automatically begin the spraying action when the barrel has been placed in position, and automatically cut off the spray when the barrel is removed.

In carrying out the objects of the invention a framework of any suitable kind is provided to which is connected one or more water discharge members and devices associated therewith for receiving and transporting the barrels or kegs from one end of the framework to the other. After the barrel or keg has been placed upon the framework the same moves downward by gravity toward the bunghole centering device and is rotated until the bunghole comes opposite a stop which moves into the bunghole. After the barrel has been centered it is lifted over to a water spraying device which sprays or washes the interior of the keg or barrel and then it is raised and lifted over and placed upon a discharge skid or upon another water spraying member where the operation is repeated. This operation may be carried on as often as desired. The mechanism associated with the last water spraying device is adapted to lift the barrel or keg upward and turn the same so that the water or other fluid inserted therein cannot escape so that when the barrel or keg is moved to an exterior scrubbing machine and rotated therein the water in the keg will thoroughly clean the same.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification in

which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side view of an embodiment of the invention, certain parts being broken away to better disclose the structure; Fig. 2 is a top plan view of the structure shown in Fig. 1; Fig. 3 is a section through Fig. 2 approximately on the line 3—3; Fig. 4 is an enlarged detail side view of a bunghole finder; Fig. 5 is an enlarged detail fragmentary view partly in section of the barrel transporting device and water supplying devices; and Fig. 6 is an enlarged sectional view through the rinsing device.

Referring to the accompanying drawings by numerals, 1, 2, 3, and 4 indicate supports for a framework 5. The framework 5 carries an inclined guiding chute 6 at the front end and an inclined guiding chute at the rear end. When a barrel is inserted into the device the same is placed upon a chute or guideway 6 whereupon the barrel will roll down and eventually engage the bunghole finder 8. At the proper time the first transporting mechanism will raise the barrel upward and move the same over and place the barrel on a stationary supporting member 10 with the water spraying or feeding device 11 projecting through the bunghole. After the barrel has been sufficiently sprayed or supplied with water interiorly the same is raised by the second transporting mechanism and deposited upon the inclined way 7 from which the barrel is designed to escape into a barrel washing machine of any desired kind which will wash or scrub the exterior and incidentally cause the water in the barrel to thoroughly rinse or wash the interior of the barrel. After the barrel has been scrubbed and washed by the barrel scrubbing machine the same may be passed through another rinsing machine, as just described, with either hot or cold water supplied thereto as desired.

When the barrel is placed on the inclined way 6 the same will move gradually down and finally rest upon a truck formed by a plurality of beveled wheels 13 supported by axles 14 and 15 held in place by suitable brackets on the framework 5. One set of wheels 13 is rotated by a chain 16 passing over a sprocket 17 rigidly secured to a shaft 18 and by a sprocket 19 rigidly secured to the axle 14. This will rotate the barrel until the bunghole comes opposite the pin 20, 110

whereupon the pin 20 will move upward and project through the bunghole and thus stop the rotation of the barrel though the rotating wheels may continue. The pin 20 is provided with an enlargement 21 normally pressed by a spring 22 which engages a frame 23 for holding the same in place, the spring supporting the pin 20. The frame 23 extends upward and is provided with an aperture through which the upper end of the pin 20 projects. When the barrel first rests upon the wheels 13, the same will depress the pin 20 which will engage the lower end of the pivotally mounted lever 24 and move the same for causing the upper end to move into the path of the next succeeding barrel positioned on the inclined ways 6. This will prevent the next succeeding barrel from interfering with the first barrel. As soon as the pin 20 has projected into the bunghole of the first barrel, the lever 24 is released so that the second barrel may move on downward and engage the first barrel, but cannot displace the same from the wheels 13, as the pin 20 holds the barrel properly in place until its removal by the transporting mechanism 9.

The first transporting mechanism is formed with a substantially arc-shaped saddle 25 rigidly secured to a shaft 26 which has links 27 rigidly mounted thereon. Pivotally connected with the shaft 26 are arms 28 and 29. The arms 28 and 29 are rigidly mounted upon the shaft 18 so as to cause rotary movement of the saddle 25 when the same is used to transport a barrel from the bunghole finder to the rinsing device. In order to hold the saddle 25 continually in an upright position as the barrel is being moved from one position to another, the links 27 have associated therewith arms 30 and 31 which are formed at their upper ends into rings 32 which fit over eccentric disks 33 mounted on the shaft 18 and pins 34 whereby the said arms will act to cause the links 27 to continually remain in a vertical position. The arms 28 and 29 are rigidly secured to the shaft 18 and are moved upward thereby which will cause the saddle 25 to move upward and engage the barrel on the bunghole finder and lift and transport the same to the position of the barrel 35 shown in Fig. 1. When this occurs the next succeeding barrel on the inclined ways 6 will move down into the position shown by the barrel 36 in Fig. 1, and the next barrel 37 will be placed on the inclined ways 6. The shaft 18 receives its power from a worm gear 38 in mesh with a worm 39 carried by a shaft 40. Upon placing the barrel 35 over the nozzle 11, the barrel will depress a stop 41 and valve controlling pins 53, whereupon the water will be permitted to flow through the nozzle 11 into the barrel 35 for washing and rinsing the same. The nozzle 11

(Fig. 6) is provided with a plurality of apertures 42 for the escape of water, and the stop 41 is adapted to receive a gasket 43 for making a reasonably tight joint. A spring 44 bears against the stop and against the support 10 for normally holding the stop in an upper position. The nozzle 11 is formed of a hollow tube and is provided with a valve seat 45 intermediate its length in which a valve member 46 is designed to be fitted. The valve member 46 is normally held in contact with the seat 45 by a spring 47. The valve member 46 is provided with a guiding stem 48 which extends upward and through the seat 45 and is connected with the cross bar 49 passing through slots 50 in the nozzle 11. The bar 49 is rigidly secured to a sleeve 51 slidably mounted on the nozzle 11 and having connected therewith a ring 52 into which is fitted pins 53 projecting upwardly beyond the upper surface of the support 10 for engaging the barrel 35 when the same is placed upon the support 10 and for being depressed thereby, which will cause movement to be conveyed to the valve 46 for opening the same. Upon opening the valve 46 water will pass from the pipe 54 into the nozzle 11 and from thence be discharged into the barrel. It will be noted that the stop 41 is slidably mounted on the nozzle 11 so that the same may be depressed without moving the nozzle. The water in the pipe 54 (Fig. 5) is controlled by a valve 56 in a casing 55 the valve being normally held on its seat by a spring 57 and which is provided with a reciprocating stem 58 which when depressed against the action of the spring 57 will unseat the valve member 56 and permit the water to flow into the pipe 54 and from thence through the discharge nozzle 11 if the pins or projections 53 are depressed. In order to control the amount of water supplied to the nozzle 11, a cam 59 is provided which is rigidly secured to a shaft 60. The cam 59 is formed with a pair of cam surfaces, one of which maintains the valve 55 open, and the other of which permits the same to remain closed. The size and shape of the cam surfaces may be changed whenever desired, and also the entire cam may be changed for causing the valve 55 to remain open longer or shorter, as desired. The cam 59 also may be set at any desired position on the shaft 60 so as to cause the valve 55 to open as soon as the barrel 35 has been placed in position or before or after that time. The shaft 60 has rigidly secured thereto a worm gear 61 which meshes with a worm 62 connected with the shaft 40. The shaft 40 carries a gear wheel 63 which meshes with a gear wheel 64 secured to a shaft 65. The shaft 65 is mounted in brackets 66 and carries a bevel gear 67 which meshes with a gear 68 rigidly secured to a shaft 69. The

shaft 69 is mounted in suitable brackets and carries a power pulley 70 designed to receive power from any suitable source.

In operation when power is turned on to the pulley 70, the shaft 40 is caused to continually operate, which will cause a continuous rotary movement of the parts of the lifting and transporting devices, and a continued intermittent forward movement of the barrels from the inclined guideway 6 to the inclined guideway 7. In connection with the second lifting and transporting device it will be noted that the same is constructed identical with the first transporting device except that the saddle 25 is not arc-shaped at both ends, but only at one end, while at the opposite end the same is elongated and is provided with a stop 25". This permits the barrel to be lifted and caused to roll to the position shown in Fig. 5, whereby the water in the barrel will remain therein and continue to wash the interior of the barrel as the barrel moves over the inclined way 7 and through the succeeding washing and rinsing machines.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. In a washing apparatus, a rinsing and filling device provided with a support for a barrel, a water discharge nozzle adapted to project through the bunghole of said barrel, and means to seal the bunghole of said barrel, when the barrel rests on said support.

2. In a washing apparatus, a rinsing and filling device provided with a support for a

barrel, a discharge nozzle adapted to project through the bunghole of said barrel, means for sealing the bunghole of said barrel when the barrel rests on said support, and an inclined saddle for receiving said barrel from said support whereby said bunghole will automatically move to an elevated position for retaining the water held in the barrel by said sealing means.

3. In a washing apparatus, a rinsing and filling device provided with a support for a barrel, a water discharge nozzle adapted to project through the bunghole of said barrel, means for sealing the bunghole of said barrel when the barrel rests on said support, and a spring continually acting on said seal for pressing the same against said barrel.

4. In a washing apparatus of the class described, a support for a barrel, a nozzle adapted to project through the bunghole of said barrel for distributing water into the interior of the barrel, a sliding washer arranged on said nozzle, a packing member arranged on the upper surface of said sliding washer for fitting against the edge of said bunghole, a spring for normally pressing said washer in a position near the upper end of said nozzle, and means for supplying water to said nozzle.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY REININGER.

Witnesses:

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JULIUS WYLER.