

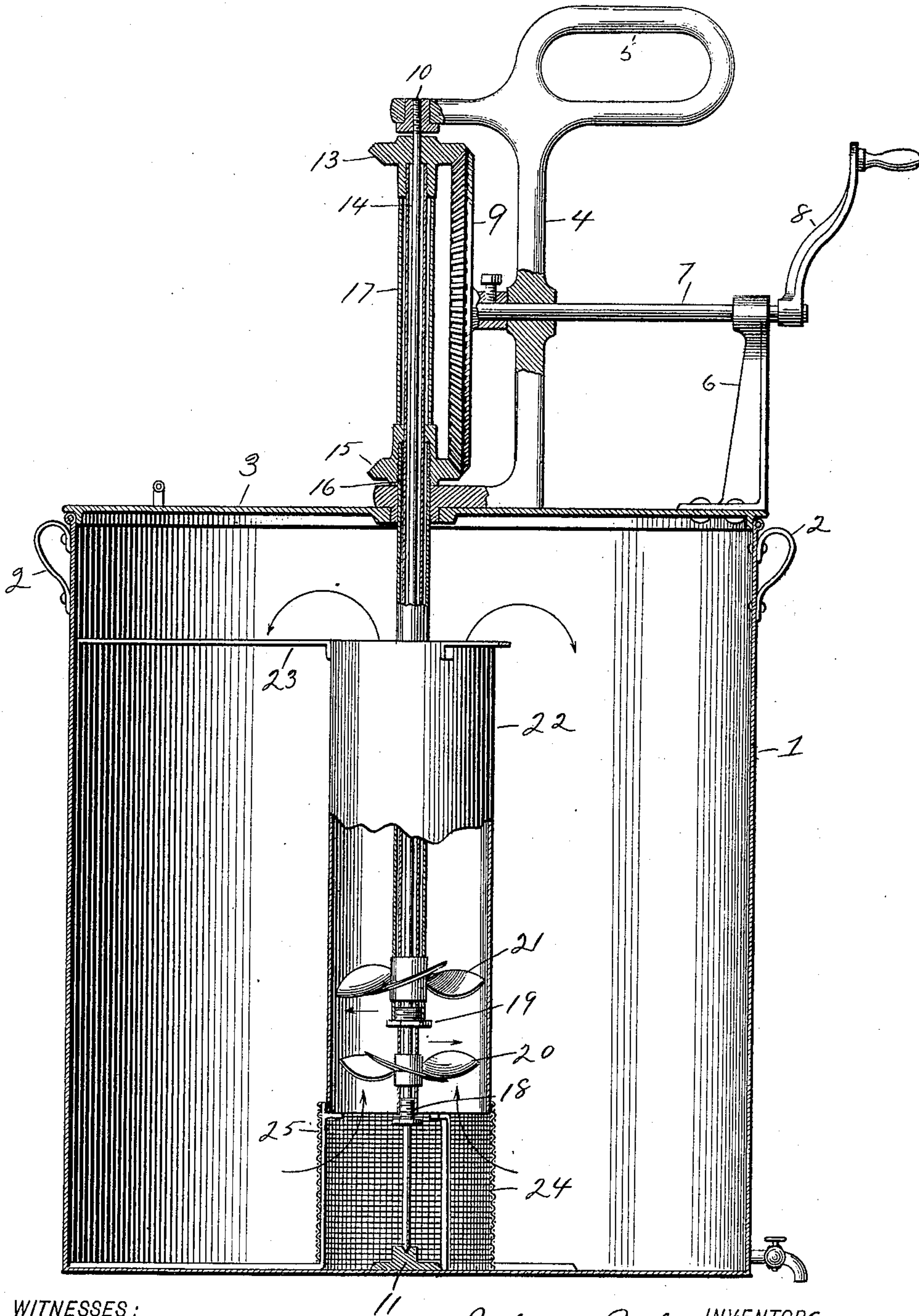
No. 614,522.

Patented Nov. 22, 1898.

J. H. WHITING & DE FOREST LILLIBRIDGE.  
COMBINED DISH WASHER AND CHURN.

(Application filed Apr. 23, 1898.)

(No Model.)



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN H. WHITING AND DE FOREST LILLIBRIDGE, OF BELVIDERE, ILLINOIS;  
SAID LILLIBRIDGE ASSIGNOR TO SAID WHITING.

## COMBINED DISH-WASHER AND CHURN.

SPECIFICATION forming part of Letters Patent No. 614,522, dated November 22, 1898.

Application filed April 23, 1898. Serial No. 678,647. (No model.)

*To all whom it may concern:*

Be it known that we, JOHN H. WHITING and DE FOREST LILLIBRIDGE, citizens of the United States, residing at Belvidere, in the county of Boone and State of Illinois, have invented certain new and useful Improvements in a Combined Dish - Washer and Churn; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention has relation to a combined washing-machine and churn; and it consists in the novel construction and arrangement of its parts, as hereinafter described.

The object of the invention is to provide a machine adapted to be used as a dish-washer or clothes-washer and at the same time being so constructed as to be easily and readily adapted for churning.

In the accompanying drawing the figure represents a transverse sectional view of the machine.

The machine consists of the receptacle 1, having on its outside suitable handles 2. A removable cover 3 is adapted to close the upper end of the receptacle, and at an intermediate point the yoke 4 is attached to the said cover 3. The hand-grip 5 is fashioned at the upper corner of the yoke 4. A column or upright 6 is fixed at its lower end to the cover 3, and the horizontal shaft 7 is journaled at one end in the said upright 6 and at its other end in a suitable bearing in the yoke 4. A handle 8 is fixed to the outer end of the shaft 7. A beveled gear-wheel 9 is fixed to the inner end of said shaft 7. A rod 10 is fixed at its upper end to the upper end of the yoke 4, the said rod passing through the lower end of the yoke 4, the lower end of the rod resting in a socket 11, said socket being located on the bottom of the receptacle 1. A beveled gear-wheel 13 is fixed to the upper end of the tube 14. Said tube surrounds the rod 10, and the said rod passes through the center of the gear-wheel 13, the said gear-wheel 13 being loosely mounted upon the rod. The gear-wheel 13 meshes with the upper portion of the gear-wheel 9. The gear-wheel 15 is fixed to

the upper end of the tube 16. Said tube 16 surrounds the tube 14. The tube 14 passes through the center of the gear-wheel 15, the said gear-wheel 15 being loosely mounted on the tube 14. The gear-wheel 15 meshes with the lower portion of the gear-wheel 9. A loose sleeve 17 is interposed between the hubs of the gear-wheels 13 and 15 and retains the said gear-wheels in their proper positions with relation to each other and with relation to the gear-wheel 9. A bushing-plug 18 is screw-threaded to the lower end of the tube 14. The rod 10 passes through the center of the said plug 18, the said plug centering the tube 18 upon the rod 10. A bushing-plug 19 is screw-threaded into the lower end of the tube 16, the said tube 16 passing through the center of the plug 19, the said plug centering the tube 16 on the tube 14. The dasher-blade 20 is fixed to the tube 14 near its lower end, the said dasher having a number of inclined blades, as shown in the drawing, and the dasher 21 is fixed to the tube 16 near its lower end, the said dasher 21 also having a number of inclined blades, the inclination of the blades of the dasher 21 being oppositely disposed to the inclination of the blades of the dasher 20.

The mechanism as above described constitutes the churn, and it is obvious that when the crank-handle 8 is revolved the operator uses one hand to revolve the said crank 8, the other hand grasping the grip 5, thus bracing the machine. Thus the shaft 7 is revolved and the gear-wheel 9 is revolved, the gear-wheel 9, meshing with the gear-wheels 13 and 15, revolving the said gear-wheels 13 and 15 in opposite directions, and this revolving motion is transmitted through the respective tubes of the said gear-wheels and revolves the dashers 20 and 21 in opposite directions. The dashers so revolving agitate the cream contained within the receptacle 1, and thus butter is quickly made. It will be observed that by lifting the yoke 5 the cover 3 will be elevated from the receptacle 1, and the entire yoke and its attachments, together with the cover, may be readily removed from the receptacle 1.

When it is desired to use the machine as a washer, either for dishes or for clothes, the



cylinder 22 is put into the interior of the receptacle 1, said cylinder having at its upper end a number of laterally-extending arms 23, which bear at their outer ends against the inner sides of the receptacle 1, and thus center the cylinder 22 in the receptacle. The lower end of the cylinder 22 is elevated above the bottom of the receptacle 1 by means of the downwardly - extending supports 24, the lower ends of the said supports 24 extending horizontally along the bottom of the receptacle 1 and bear at their outer ends against the inner walls of the said receptacle, thus centering the lower portion of the said cylinder 22 in the receptacle. A wire gauze or netting 25 surrounds the perpendicular portions of the supports 24. Thus it is impossible for the clothes or dishes to come in contact with the revolving dashers 20 or 21.

When the machine is used as a washer, the clothes or dishes are placed around the cylinder 22, and by operating the handle 8, as above described, the water is drawn up by means of the dashers 20 and 21 through the cylinder 22 and is expelled at the top thereof. The said water then descending passes through the clothes or dishes, cleans them, and continues its circuit, as indicated by the arrows in the figure.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A machine of the nature as stated, consisting of a receptacle, a cover for the said receptacle, a horizontal revolving shaft located on the cover, a gear-wheel fixed to said shaft, a plurality of horizontal gear-wheels adapted to mesh with the first said gear-wheel, a tube fixed at its upper end to each horizontal gear-wheel, said tubes being of different diameters, the smaller tube passing through the larger tube, dashers fixed to the lower ends of the tubes, a rod suitably confined at its lower end on the bottom of the receptacle and at its upper end to a suitable stationary point said rod passing through said tubes and a suitable means for revolving the horizontal shaft.

2. A machine of the nature as described, consisting of a receptacle, a cover adapted to close the upper end of said receptacle, a hori-

zontal shaft journaled on said cover, a beveled gear-wheel fixed to said shaft, horizontally-beveled gear-wheels meshing with the first said gear-wheel, a rod suitably confined at its upper end to an extension of the cover and at its lower end against the bottom of the receptacle, said rod passing through said gear-wheels, tubes fixed at their upper ends to said gear-wheels, said tubes being of different diameters, the smaller tube passing through the larger tube, a bushing-plug located at the end of each tube and adapted to center the larger tube on the smaller tube and the smaller tube on the said rod, dashers fixed to the lower ends of said tubes and a suitable means for revolving the horizontal shaft.

3. A machine of the nature as described, consisting of a receptacle, a covering adapted to close the upper end of said receptacle, tubes one located within the other and both passing through said covering, a suitable means for imparting rotary motion in opposite directions to the said tubes, dashers fixed to the lower ends of said tubes, a cylinder located within the receptacle and being elevated above the bottom thereof, said cylinder surrounding the dashers, a suitable wire-netting being interposed between the lower end of the cylinder and the bottom of the receptacle.

4. A machine of the nature as described, consisting of a receptacle, a cover adapted to close the upper end of said receptacle, tubes one located within the other and both passing through said cover, a means for transmitting rotary motion in opposite directions to said tubes, dashers fixed to the lower ends of said tubes, a cylinder located within the receptacle and elevated above the bottom thereof, radiating arms connected to said cylinder and adapted to bear at their outer ends against the inner sides of the receptacle and center the cylinder within the receptacle, said cylinder surrounding the dashers.

In testimony whereof we affix our signatures in presence of two witnesses.

JOHN H. WHITING.  
DE FOREST LILLIBRIDGE.

Witnesses:

J. H. SAXTON,  
FRANK. A. MATTSON.