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# UNITED STATES PATENT OFFICE.

ALPHEUS W. ALTORFER, OF PEORIA, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS,  
TO CENTRAL TRUST COMPANY OF ILLINOIS, A CORPORATION OF ILLINOIS.

## WASHING MACHINE.

Application filed November 6, 1919. Serial No. 336,023.

*To all whom it may concern:*

Be it known that I, ALPHEUS W. ALTORFER, a citizen of the United States, a resident of Peoria, in the county of Peoria and State of Illinois, have invented new and useful Improvements in Washing Machines, of which the following is a specification.

This invention has reference to washing machines, and relates more particularly to the supporting and enclosing casings for the oscillatory cylinder and operating mechanisms.

The principal object of the invention is to provide, what may be termed a cabinet machine, i. e., a machine made in the form of a cabinet, with enclosing walls on all four sides, and with shields and protecting guards to cover the otherwise exposed operating mechanisms and gear wheels so as to protect the user against bodily harm, when the machine is in use, through coming into contact with such gear wheels.

I am aware that it is not new to provide a guard here and there on washing machines to protect the user from coming into contact with exposed gear wheels and parts of the motor and transmitting mechanisms, but I believe that I am the first to provide a cabinet machine where the tub and cylinder are substantially incased, and where, with the exception of the main control lever, all of the operating mechanisms are enclosed.

That the invention may be more fully understood, reference is had to the accompanying drawings, forming a part of the description, in which:

Figure 1 is a front elevation of my cabinet, the casing for the gearing which operates the wringer being broken away;

Figure 2 is a side elevation of the cabinet, as the same would appear looking at the right hand side of Figure 1;

Figure 3 is a detail cross-section, in plan, as the same would appear, taken on the line 3—3 Figure 1;

Figure 4 is a detail cross-section, in plan, as the same would appear, taken on the line 4—4 Figure 2;

Figure 5 is a detail vertical sectional view, as the same would appear, taken on the line 5—5 Figure 1.

Like characters of reference denote corresponding parts throughout the figures.

The drawing shows a cabinet arranged to house a tub and a cylinder, but it is un-

derstood clothes containers of other types could very easily be arranged within the cabinet and the design changed slightly to accommodate the same.

The cabinet disclosed conforms to the washing machine disclosed in my application for patent filed on the 23rd day of May 1918, bearing Serial Number 236,142, to which reference may be had for a disclosure of the cylinder and operating mechanisms for the machine.

The cabinet comprises the four corner standards or posts 1 made preferably of angle-iron. To the lower end of each standard or post 1 is connected a bracket 2, in which is journaled a caster-wheel 3. Extending across the front of the cabinet, at a suitable point, is a cross-frame or casting 4, which, at its opposite ends is bolted, or otherwise suitably secured to opposite corner standards or posts 1, and secured to this cross-frame midway its ends, is a cover-casing 5 to house a gear and form a bearing for the load shaft, or the shaft employed for imparting motion to the cylinder contained within the cabinet. Said cover-casing has a plate 6 connected therewith, on which may be fulcrumed a lever. The four corner standards or posts, at their lower ends are connected, preferably by the angle-iron bars 7, to support any suitable base-plate or plates on which rest the motor, and to which may be secured the housing 8 for certain transmission gearing for imparting movement from the motor to the cylinder and operating mechanisms of the machine.

To one of the corner standards or posts 1 is secured the gear casing 9, adapted to incase mitre gearing receiving power from the motor, and arranged to impart such power to a vertically disposed wringer shaft located within a tubular casing 10, connecting the casing 9 and a bracket casing 11, also secured to the standard or post 1. Above the bracket casing 11 is intended to be located the casing for the wringer gearing, and also the swingable support for the wringer.

12 designates the tub located within the confines of the four standards or posts 1, being preferably formed with a rounded bottom 13 and having four side-walls, one of which, 14, serves as a closure or wall for the front side of the cabinet, Figure 1, from the top of the cross-frame or casting 4 to the

top of the cabinet and across the cabinet. The lower part of the front of the cabinet is closed by a wall or shield 15 formed with an outwardly extending or off-set body portion 16 designed to enclose and cover a crank and pitman connection between the transmission gearing and a toothed segment, employed to impart motion to the load shaft. Associated with the wall or shield 15 and particularly the off-set body portion 16, is a cover-plate or casting 17 acting as a guard and enclosure for the toothed segment. The wall or shield, and cover plate are secured in place, as follows: The vertical outside edge of the flat portion of the wall or shield 15 lies between the wall 14 of the tub 12 and a corner standard or post 1, and the wall of the off-set body portion 16 of said wall or shield has an opening adapted to pass over a threaded stem 18 and held there by the wing-nut 19, while the lower edge of said wall or shield 15 slips over, and is held in place by a spring 20, see Figure 5, said opening secured to one of the angle iron bars 7. The cover plate or casting 17 is bolted or otherwise suitably secured to the cross-frame or casting 4 and the bracket casting 11. The upper ends of the corner standards or posts 1 are preferably connected by the cross-bars 21, preferably angle-irons.

The right hand side of the cabinet, looking at Figure 1, being the side exposed in Figure 2, is preferably covered by the walls or shields 22 and 23 hinged together at 24. The opposite outside edges of the wall or shield 22 lie between the tub 12 and the corner standards or posts 1, but the opposite outside edges of the wall or shield 23 lie adjacent the edges of said corner standards or posts 1 and are free, so that said lower wall or shield 23 may be raised and lowered to permit access being had to the transmission gearing enclosed in the housing 8, and inasmuch as said housing 8 projects out beyond the wall or shield 23, said wall or shield 23 is preferably cut away, as at 25, to accommodate it to said housing 8.

The rear side of the cabinet, see Figure 4, shown in cross-section, is covered by a wall or shield 26 extending from the top to the bottom of the cabinet, lying between the tub 12 and the corner standards or posts 1. Likewise, the side of the cabinet, opposite to

Figure 2, see Figure 3, shown in cross-section, is covered by a wall or shield 27 extending from the top to the bottom of the cabinet, lying between the tub 12 and the corner standards or posts 1. It is understood that the wall or shield 15 is intended to be removed as occasion demands, which is accomplished by unscrewing the wing-nut 19 and withdrawing the edge of the flat portion of said wall or shield from behind the corner standard or post 1, and the upper edge of the off-set body portion 16 of said wall or shield from under the cover-plate or casting 17, which is off-set longitudinally, as at 28, see Figure 5, to receive the edge of the said wall or shield. The lower wall or shield 23 may be raised and lowered as understood, and while it may be possible to remove the wall or shield 26 and 27, they are intended to be permanent.

A cover or lid 29 is provided, removably laid on the top of the cabinet, and provided with depending flanges, not shown, to lie against the inner edges of the angle-irons 21 and prevent accidental displacement of said cover or lid.

A cross-brace, not shown, for the rear of the cabinet connecting the opposite corner standards or posts 1 may be provided, if desired, and as many inside cross-braces, not shown, may be provided, as is desired.

What I claim is:

1. A cabinet for a washing machine, including four corner posts, a wall for each of the four sides of said cabinet, one of said walls being removable and having an off-set body portion, means for holding said removable wall in place, and a cover-plate for the upper end of the off-set body portion of said wall.

2. A cabinet for a washing machine, including four corner posts, a wall for each of the four sides of said cabinet, one of said walls being removable and having an off-set body portion, a spring clip to engage the lower edge of said wall, means to removably secure said wall in place, and a cover plate for the upper end of the off-set body portion of said wall, the lower edge of said cover-plate being flanged to lap over said wall.

In witness whereof, I have hereunto affixed my hand this 4th day of November, 1919.

ALPHEUS W. ALTORFER.