

972,714.

Patented Oct. 11, 1910.

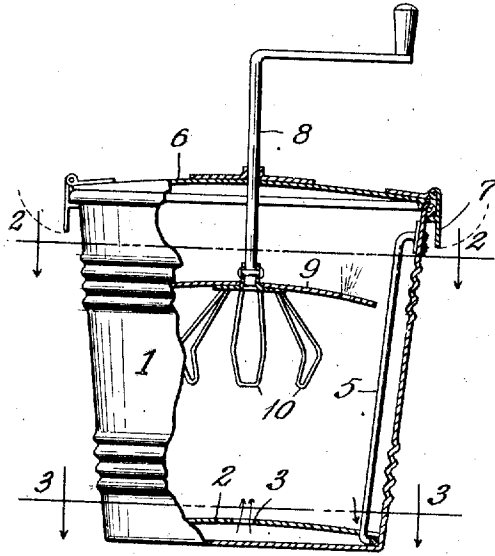


FIG. 1.

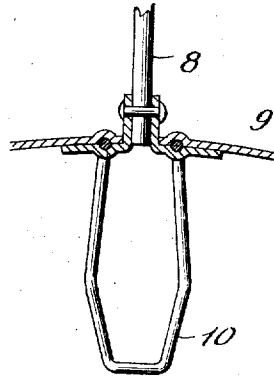


FIG. 4.

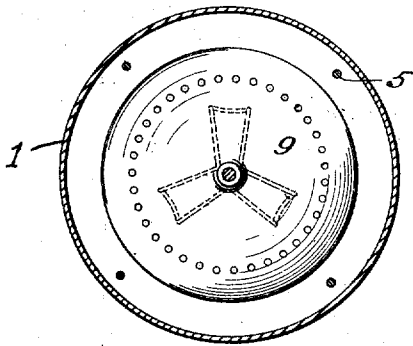


FIG. 2.

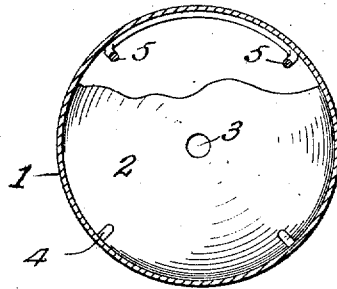


FIG. 3.

WITNESSES

Stuart Allen
G. R. McManis

INVENTOR
FRANCIS PAUL, JR.

Francis Paul, Jr.

UNITED STATES PATENT OFFICE.

FRANCIS PAUL, JR., OF MONTREAL, QUEBEC, CANADA, ASSIGNOR TO PIERRE BEAUDOIN,
OF MONTREAL, CANADA.

WASHING-MACHINE.

972,714.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRANCIS PAUL, JR., of the city of Montreal, in the Province of Quebec and Dominion of Canada, have invented certain new and useful Improvements in Washing-Machines, of which the following is a full, clear, and exact description.

This invention relates to washing machines and more particularly to that class of machines adapted to both boil and wash clothes simultaneously and to make use of a forced circulation of water.

Broadly speaking, the invention comprises a receptacle adapted to contain the clothes and water, a plate removably mounted in the receptacle just above the bottom thereof and adapted to insure circulation of the heated water in the receptacle, and a scrubbing device provided with a perforated disk and adapted to be revolutely mounted in the cover of the machine.

In order to more clearly disclose the construction, operation and use of the invention, reference should be had to the accompanying drawings forming part of the present application.

Throughout the several views of the drawings, like reference characters designate the same parts.

In the drawings,—Figure 1 is a vertical section through the washer. Fig. 2 is a section on line 2—2 of Fig. 1, looking in the direction of the arrow. Fig. 3 is a section on line 3—3 of Fig. 1, looking in the direction of the arrow; and Fig. 4 is a detail elevation of one of the prongs of the scrubbing device.

Referring to the drawings in detail, 1 indicates a receptacle of suitable shape and construction and adapted to contain the clothes to be washed. In the bottom of this receptacle is removably mounted a concavo-convex plate 2, provided with a central opening 3 and so placed that its concave face is toward the bottom of the receptacle and its periphery raised at the bottom of the inner wall of the receptacle. In this way, a heating chamber of comparatively great surface and little depth is formed at the point where heat is first applied. The periphery of the plate is provided with notches 4, which serve both for the passage of guide rods 5 which extend from the top to the bottom of the receptacle and are fastened thereto at each end and for the return current of the circu-

lating hot water, as indicated by the arrow in Fig. 1. The guide rods, of course, serve to hold the plate in position and prevent its floating about or turning over as the water rises beneath it and is forced out through the opening 3 while boiling.

A cover 6 is provided and may be fastened to the receptacle by the clamp 7 which engages the bead adjacent the upper end thereof. In this cover is removably mounted the shaft 8 of a scrubbing device, comprising a curved or dish-shaped perforated disk 9, and a plurality of depending prongs or fingers 10. The disk is provided with a plurality of perforations about its periphery. The main object of this disk is to prevent overflow of the water while boiling. As the water boils violently, it rises rapidly and is intercepted by the disk. The disk breaks the steam bubbles, and the steam rushes through the perforations, while the water freed of the steam, drops below the disk again.

As the water is rapidly heated to a high temperature in the bottom of the receptacle, a regular upward and downward circulation is started, the water flowing first through the opening 3 upward against the under face of the disk 9, and then downward through the notches 4 beneath the plate 2 to be heated and again rise.

The fact that the parts are all readily removable renders the whole machine very sanitary and easily cleaned.

During the operation of boiling, the shaft 8 is revolved by means of a suitable handle, and the scrubbing device 9, provided with the prongs 10 bent as indicated, comes in contact with the clothes and they may be rubbed as much as is found necessary.

It is thought that the operation and use of the machine will be clear from the preceding detailed description.

Changes may be made in the construction, arrangement and disposition of the several parts, without in any way departing from the field and scope of the invention, and it is meant to include all such within this application, wherein only a preferred form has been shown and described.

Having thus described my invention, what I claim is:—

1. A machine of the character described comprising the combination with a receptacle adapted to be heated above a fire, of a

curved plate mounted at the bottom of said receptacle in such a manner as to present between it and the bottom of the receptacle a shallow heating chamber, said plate being provided with a central opening flush with the surface of said plate to permit the circulation of hot water upwardly, and with peripheral openings adapted to admit water downwardly underneath said plate, vertical guide rods fixed to the receptacle and adapted to hold said plate in position and a disk suspended at the top of the receptacle having a series of apertures at the outer circumference thereof, substantially as described.

2. In a washing machine of the character described the combination with a receptacle adapted to be heated above a fire, of a curved plate mounted at the bottom of said receptacle in such a manner as to present between it and the bottom of the receptacle a shallow

heating chamber of comparatively large area, said plate being provided with a central opening flush with the surface of the plate to permit the circulation of hot water upwardly, and with peripheral openings adapted to permit the circulation of water downwardly underneath the plate, guide rods for holding said plate in position, a disk mounted at the top of the receptacle and provided with a plurality of peripheral perforations, and a series of depending prongs extending below said disk, substantially as described.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

FRANCIS PAUL, Jr.

Witnesses:

C. W. TAYLOR,
J. P. BEAUDOIN.