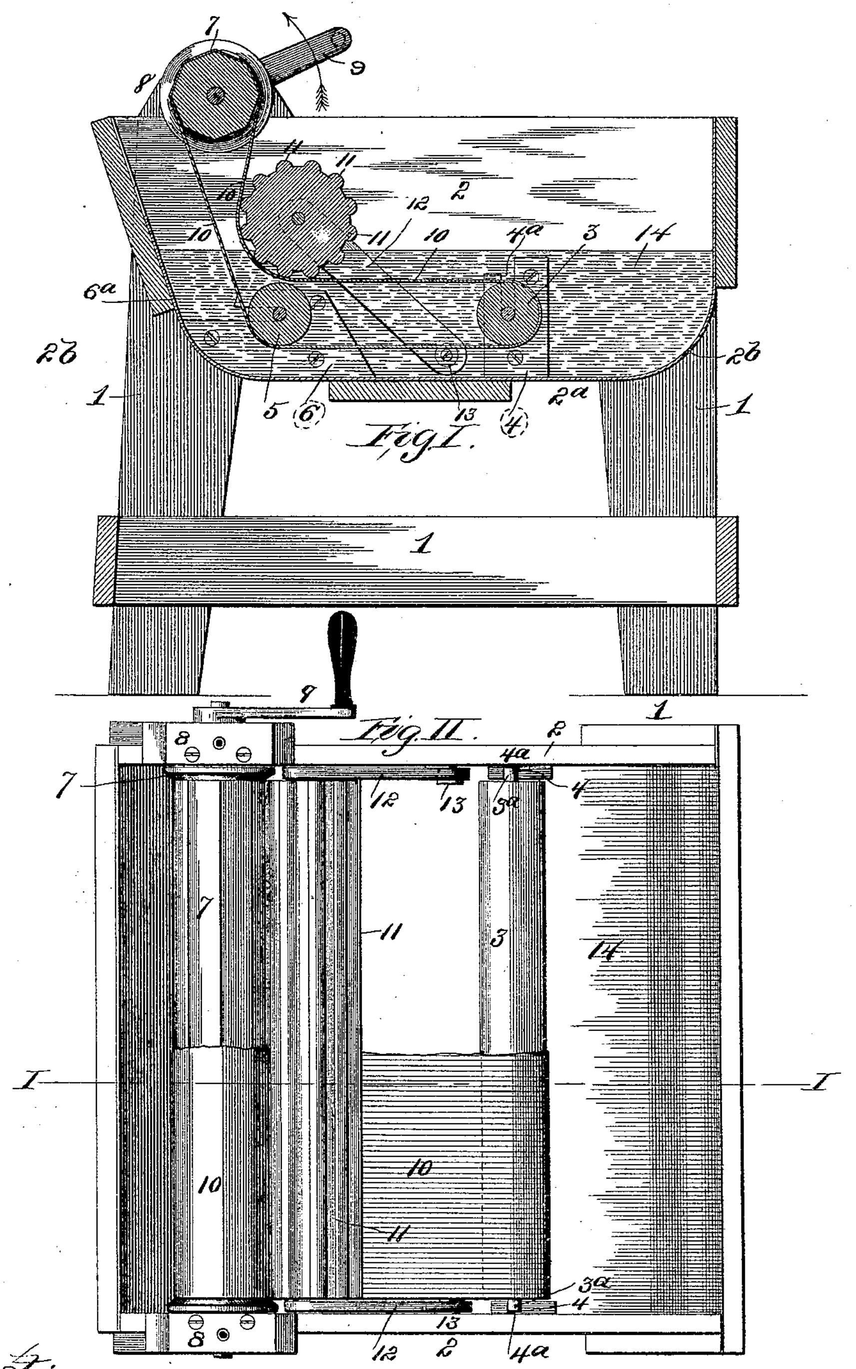
(No Model.)

P. H. LAMBACH.
WASHING MACHINE.

No. 493,335. Patented Mar. 14, 1893.



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UNITED STATES PATENT OFFICE.

PHILIP H. LAMBACH, OF BOULDER, COLORADO.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 493,335, dated March 14, 1893.

Application filed May 28, 1892. Serial No. 434,770. (No model.)

To all whom it may concern:

Be it known that I, PHILIP H. LAMBACH, of the city and county of Boulder, in the State of Colorado, have invented a certain new and useful Improvement in Washing-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

This washing machine belongs to that class in which the articles to be washed are passed beneath a ribbed roller. The novel features are set forth in the claim.

Figure I is a longitudinal vertical section, taken at I—I, Fig. II. Fig. II is a top view part of the endless apron being broken away and omitted to show parts of the machine beneath.

1 is the stand which may be of any suitable construction.

2 is the vessel having a general rectangular form in its upper part, and with bottom 2^a rounded at the ends 2^b.

3 is a rear roller whose gudgeons 3^a, have bearing in the upright open ended slots 4^a of the cleats 4 that are attached to the inner sides of the vessel. The construction is such that the roller may be dropped into place in its bearings.

5 is a front roller that may be about equal in size with the roller 3 and at the same level. Cleats 6 are shown attached to the sides of the vessel and having horizontal open ended slots 6^a to receive the gudgeons of the roller 5, and in which the gudgeons have bearing.

7 is an upper roller having bearing in boxes 8 located upon the vessel and turned by a handle 9 or other suitable means. This roller is polygonal in form as to provide flat surfaces or squared faces and angles shown, so as to take a good hold of the endless belt or apron 10 and to increase its hold on the clothes when it is desired to lift them from the vessel. The endless belt or apron passes around the rollers 3 and 7 and the under part of it passes beneath the roller 5. 11 is an intermediate roller located above the front roller partly between the latter and the upper roller in a bag of the apron and having ribs 11^a. The gudgeons of this roller have bearing in the ends of arms or links 12 pivoted at the lower end to the side of the vessel by pivots 13. This roller rests on the top of the endless belt or apron 10, as seen in Fig. I, and presses it down by gravity upon or in proximity to the roller 5. The endless apron has horizontal parts extending from the rear roller to the front roller and vertical parts extending from the front roller to the upper roller.

The articles to be washed are dropped into the part 14 of the vessel and one or more of the articles, at a time, are placed upon the endless apron and by turning the handle in the direction indicated by the arrow in Fig. I the articles are drawn between the rollers 11 and 5. As they reach the top of the roller 11 the apron tilts them over it and they fall down onto the horizontal part of the apron and are carried again between the rollers 11 and 5. If desired, the handle may be reciprocated in the arc of a circle so as to concentrate action upon a particular article or part of an article.

When the articles have been sufficiently washed they may be pressed by hand against the roller 7 and will be carried over that roller and discharged from the machine. I purpose to make the endless apron 10 of coarse canvas but may use any suitable material.

I claim as my invention—

A washing machine consisting of the vessel 2, having a general rectangular form in its upper part, and provided with a bottom 2^a rounded at its ends 2^b, the cleats 4 attached to the sides of the vessel having open ended upright slots 4^a, the rear roller 3 having gudgeons 3^a bearing in the upright slots, the cleats 6 attached to the sides of the vessel having open ended horizontal slots 6^a, the front roller 5 located at the same level as the rear roller having gudgeons bearing in the horizontal slots, the boxes 8, located upon the vessel, the polygonal faced upper roller 7 bearing in the boxes, having a handle 9 by which it is rotated, the links 12 pivoted to the

sides of the vessel near its bottom and extending toward the front end of the vessel, the intermediate roller 11 located over the front roller partly between the latter and the upper roller, mounted in the outer ends of the links, and having ribs 11^a and the endless apron 10, having horizontal parts extending from the rear roller to the front roller and vertical parts extending from the front roller to the upper rollers; substantially as described.

PHILIP H. LAMBACH.

In presence of—
A. M. ROUSE,
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