

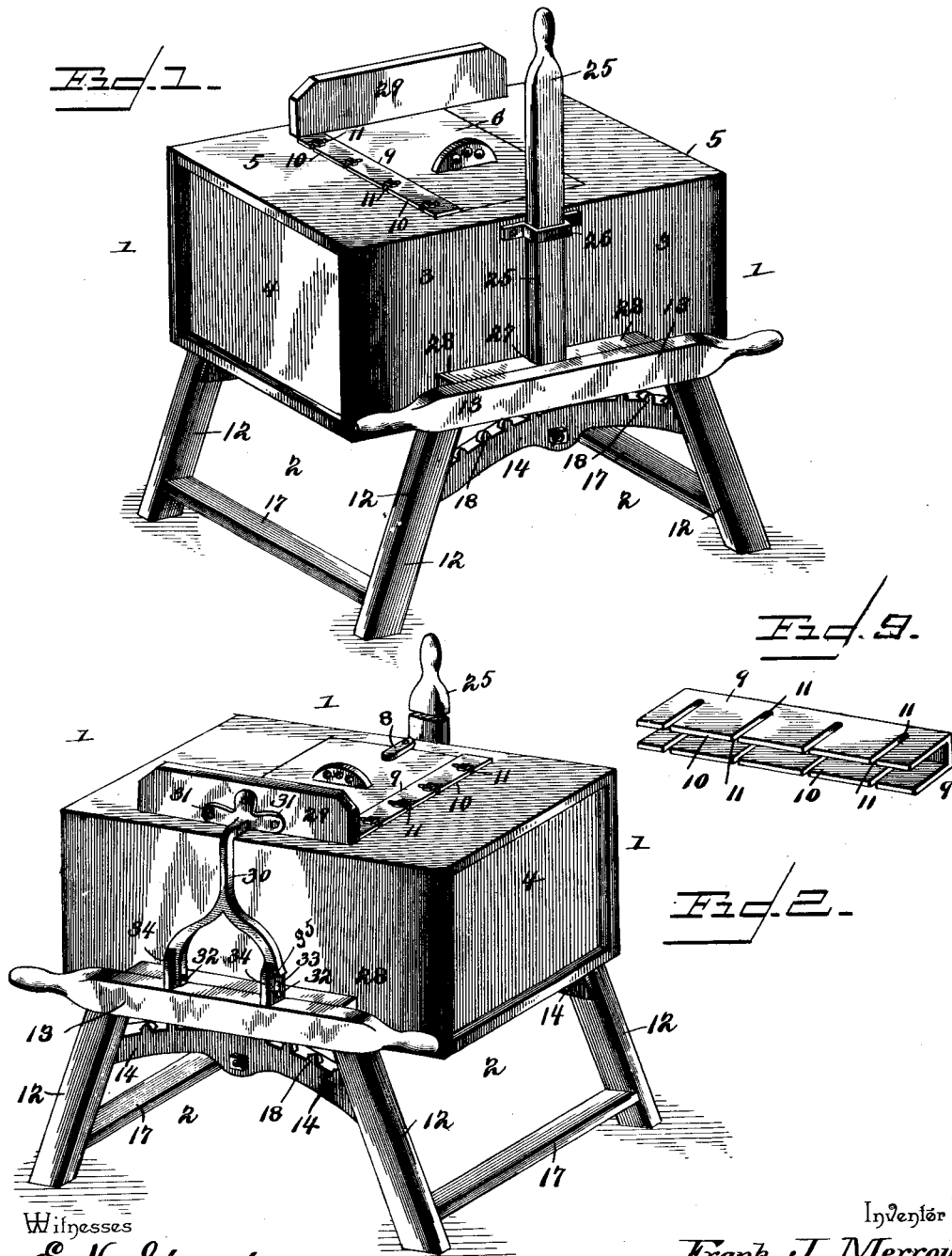
(Model.)

2 Sheets—Sheet 1.

F. J. MERROW.
WASHING MACHINE.

No. 523,479.

Patented July 24, 1894.



Witnesses

E. H. Stewart
N. J. Riley

By *his* Attorneys,

C. A. Snow & Co.

Inventor

Frank J. Merrow.

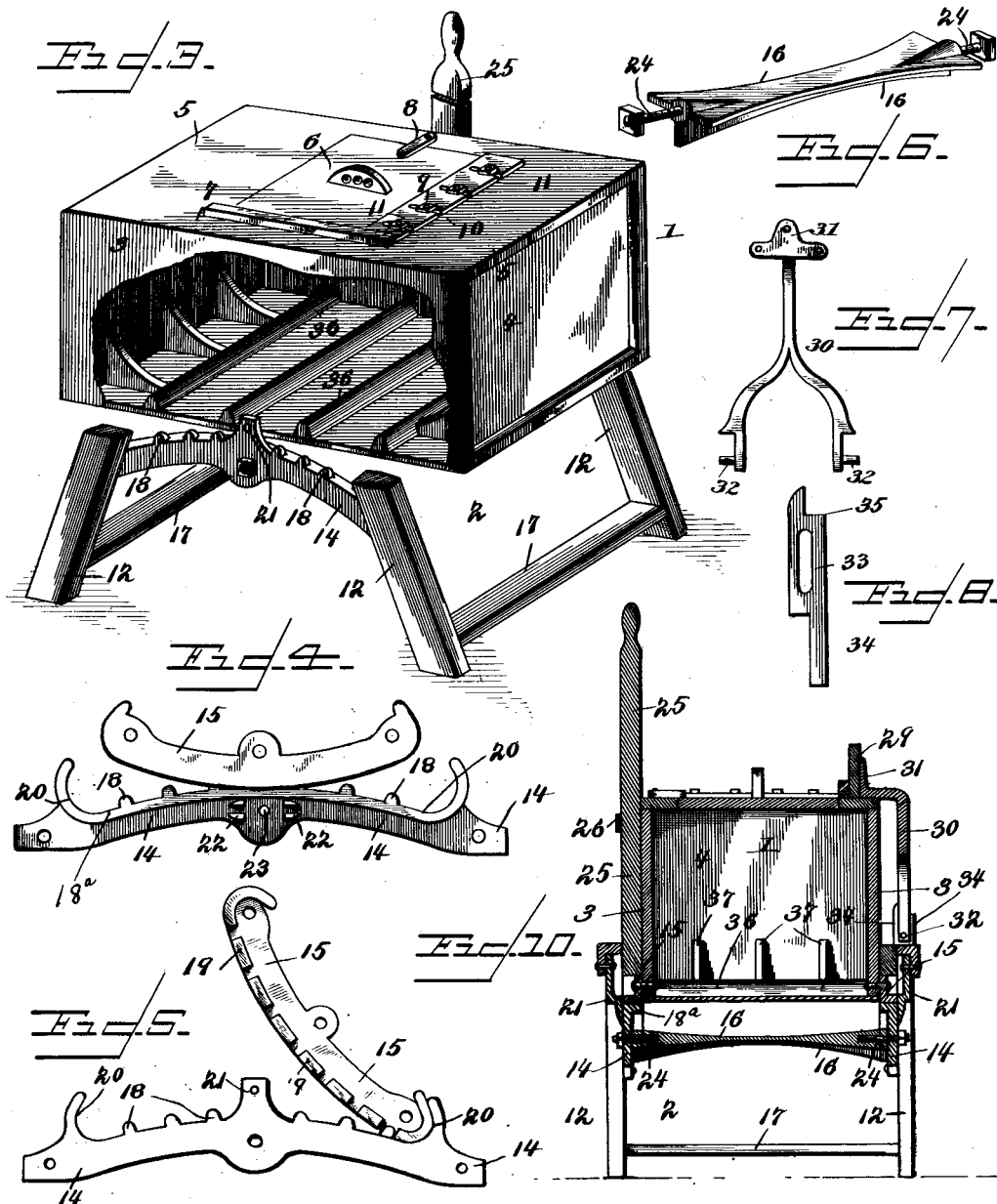
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UNITED STATES PATENT OFFICE.

FRANK J. MERROW, OF AMBOY, ILLINOIS.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 523,479, dated July 24, 1894.

Application filed August 27, 1892. Serial No. 444,290. (Model.)

To all whom it may concern:

Be it known that I, FRANK J. MERROW, a citizen of the United States, residing at Amboy, in the county of Lee and State of Illinois, have invented a new and useful Washing-Machine, of which the following is a specification.

The invention relates to improvements in washing machines.

10 The object of the present invention is to simplify and improve the construction of washing machines, and enable clothes to be thoroughly cleaned without injury to the fabric.

15 A further object of the invention is to enable rocking-body washing machines to be readily operated without liability of the body becoming separated from the frame.

20 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the claims hereto appended.

25 In the drawings—Figures 1 and 2 are perspective views of washing machines constructed in accordance with this invention. Fig. 3 is a similar view, the body being partially broken away to show the interior. Figs. 4 and 5 are detail views of the rocker and rack-bar. Fig. 6 is a detail perspective view of the cross-bar which connects the rack-bars. Fig. 7 is a detail view of the wringer casting. Fig. 8 is a similar view of one of the wringer bar journals. Fig. 9 is a detail perspective of the zinc extension. Fig. 10 is a transverse sectional view.

35 Referring to the accompanying drawings, 1 designates a washing machine body rectangular in cross-section, mounted on a stand or base 2 and adapted to rock. The sides 3 are secured to the ends 4, and to make the joint water-tight it is designed to be coated with white-lead and have a cord arranged within it previous to nailing the parts together.

45 The top 5 is provided with an opening which, during the operation of the machine, is closed by a cover 6, one end of which engages a cleat 7 and the other end is locked by a pivoted button 8.

50 Arranged between one side of the cover and the adjacent edge of the top is an ad-

justable extension 9 which is constructed of sheet-metal, preferably zinc, and is U-shaped in transverse section and has its sides 10 arranged on the upper and lower faces of the top. The extension is provided with transverse slots 11 and is secured in place by bolts, and is adapted to close a space between one side of the cover and the top, and is capable of being adjusted to allow for any shrinking or warping of the parts.

The stand 2 consists of four legs 12, cross-pieces 13 secured to the upper ends of the legs, and rack-bars 14 connecting the legs at the sides of the machine and extending longitudinally of the body, and adapted to be engaged by the rockers 15, and the cross-bars 16 having its ends centrally secured to the rack-bars 14. The legs have their lower ends connected by bars 17, and the ends of the top-pieces 13 are extended beyond the legs and formed into handles, whereby the machine may be readily carried.

The corresponding convex bars 14 and 15 which are secured to the base and the body respectively, are constructed of suitable material and they enable the body to be easily rocked with a minimum amount of labor on the part of the operator.

80 The rack-bars 14 are provided at their upper edges with upwardly projecting teeth 18, and they have a laterally extending longitudinal flange 18^a. The rockers 15 are provided with laterally extending flanges having teeth 19, which receive in their intervals the teeth 18 of the rack-bar 14; and this construction prevents lateral movement and displacement of the parts. The rack-bars are slightly curved and present a convex face to the rockers, and are provided at their ends with recesses 20 which are adapted to receive the ends of the rockers and prevent the body falling when violently rocked and very much tilted; and the teeth and notches prevent the rockers slipping longitudinally of the rack-bars.

95 The rack-bar 14 is provided intermediate its ends, at one side, with a lug 21, and at its opposite side with lugs 22 arranged in pairs on opposite sides of a central opening 23. The lug 21 is perforated and serves as means for securing the rack-bar to the cross-piece 13, and the lugs 22 are adapted to receive be-

tween them the horizontal flanges of the T-shaped cross-bar 16. The cross-bar 16 is constructed of metal and is T-shaped in cross-section or flanged, and is provided at its ends with longitudinally projecting stems 24 which are arranged in the central openings of the rack-bars and are secured therein by nuts.

The body is operated by a handle-bar 25 which is secured to one side of the body by a clip 26 and has its lower end engaging a recess 27 of one of a pair of cleats 28. The cleats 28 are secured to the sides of the body and are arranged between the cross-pieces 13 and the body.

A wringer-board 29 is hinged by a casting 30 to one of the cross-pieces 13, and when not in use, is adapted to be swung to one side of the body. The casting 30 is provided at its upper end with an integral perforated plate 31 which is secured to the wringer-board 29, and at its lower end with journals 32. The journals 32 are arranged in elongated openings 33 of bearings 34, which are provided at their lower ends with extensions whereby they are attached to the cross-pieces 13, and at their upper ends with recesses 35 adapted to receive the casting 30 and prevent the same swinging outward. When it is desired to arrange the wringer board on the body, the casting 30 is engaged with the recesses 35, and in order to disengage the casting it is lifted; and the elongated openings 33 permit the lifting of the casting.

The bottom of the body is provided on its inner face with transverse rubbing bars 36 which are triangular in cross section and form isosceles triangles, the inclined sides being of equal lengths; and the transverse bars are arranged at intervals to within a short distance of the ends of the body. Tapering blocks 37 are arranged at intervals at the ends of the bottom, and during the rocking of the machine they serve to turn the clothes and form pockets which collect water which is forced through the clothes and removes the dirt and stains therefrom.

It will be seen that during the rocking of the body the clothes are thrown from one end to the other and are turned, and may be thoroughly cleaned without injury to the fabric.

From the foregoing description, and the accompanying drawings, the construction, operation, and advantages of the invention will be readily understood.

What I claim is—

1. The combination, with a rocking body mounted on a base, of corresponding convex bars secured to the body and the base, re-

spectively, and raised portions formed on each end of the bars that are secured to the base, whereby the body is prevented rocking off, substantially as described.

2. The combination of a body, rockers secured to the sides thereof and having curved ends and provided with teeth, a stand, and rack bars secured to the stand and having teeth and provided at their ends with curved raised portions forming recesses at their inner sides to receive the curved ends of the rockers to prevent the body from rocking off, substantially as described.

3. The combination of the body, the rockers secured to the body, the stand comprising the legs and the cross-pieces 13 secured to the upper ends of the legs, the rack-bars provided at one side with a lug 21 and having a central opening and provided with pairs of lugs 22 arranged on opposite sides the central opening, and the cross bar having longitudinal flanges engaging the lugs 22 and provided with threaded stems arranged in the central openings and secured therein by nuts, substantially as described.

4. The combination of the wringer-board, the bearings provided with elongated openings, the casting 30 secured to the wringer-board and provided at its lower end with journals arranged in the elongated openings and having a limited movement on the bearings, and means for locking the castings rigid with the bearings, substantially as described.

5. The combination of the wringer-board, the bearings having elongated openings and provided at their lower ends with plates and at their upper ends with recesses, and the casting 30 secured to the wringer-board and provided at its lower end with journals arranged in the elongated openings, and having lugs arranged at the sides of the casting and adapted to engage the recesses 35, substantially as described.

6. The combination with the body having its top provided with an opening, of the cover, and the adjustable extension arranged at one side of the cover and constructed of sheet-metal and being approximately U-shaped and provided with transverse slots, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

FRANK J. MERROW.

Witnesses:

JAMES H. PRESTON,
L. A. BODINE.