

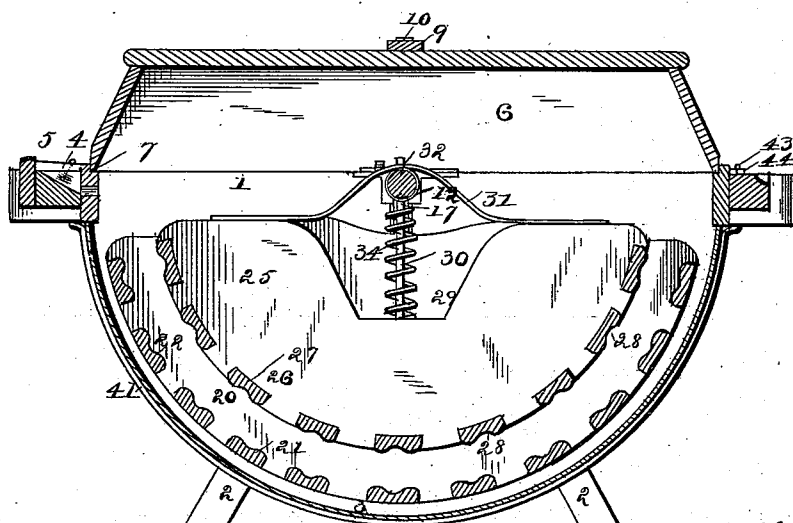
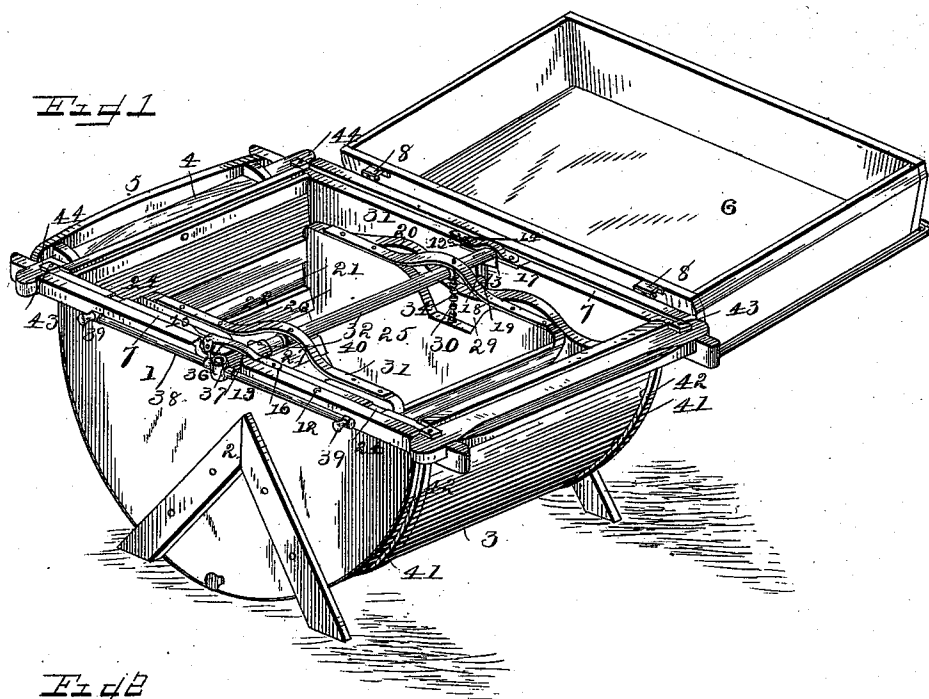
(No Model.)

2 Sheets—Sheet 1.

I. WHITNEY.
WASHING MACHINE.

No. 376,932.

Patented Jan. 24, 1888.



Witnesses
A. L. Ourand
Benj. E. Cowf.

Inventor.
Isaac Whitney,
By his Attorneys
Louis Dagher & Co.

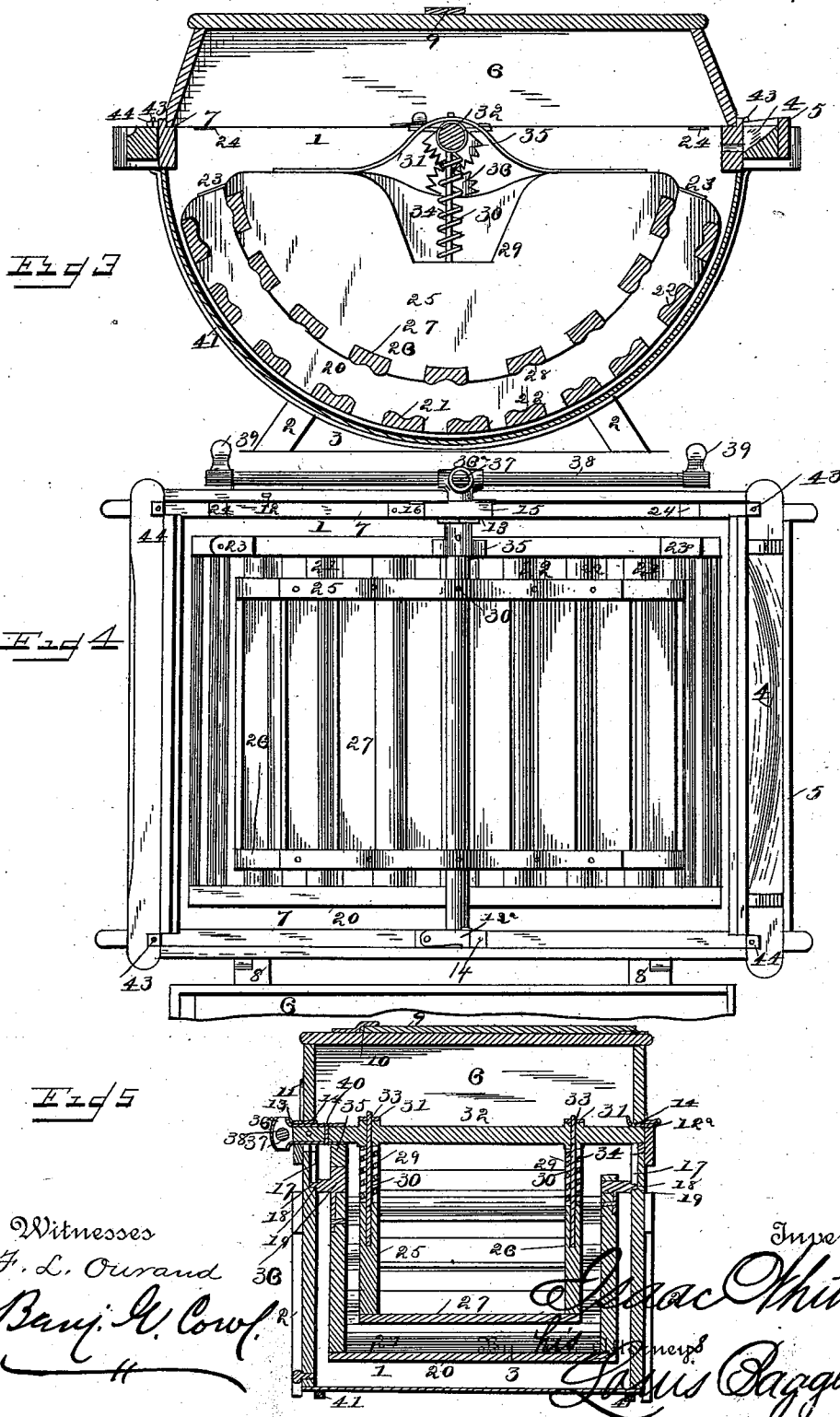
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2 Sheets—Sheet 2.

I. WHITNEY.
WASHING MACHINE.

No. 376,932.

Patented Jan. 24, 1888.



Witnesses
H. L. Ourand
Benj. H. Cowf.

Inventor
Isaac Whitney,
Jas. C. Rogers & Co.

UNITED STATES PATENT OFFICE.

ISAAC WHITNEY, OF LYNNVILLE, IOWA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 376,932, dated January 24, 1888.

Application filed August 9, 1887. Serial No. 246,502. (No model.)

To all whom it may concern:

Be it known that I, ISAAC WHITNEY, a citizen of the United States, and a resident of Lynnville, in the county of Jasper and State of Iowa, have invented certain new and useful Improvements in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved washing-machine, showing the cover folded to one side. Fig. 2 is a longitudinal vertical sectional view of the same. Fig. 3 is a similar view taken on the same line and looking in the opposite direction. Fig. 4 is a top plan view of the machine with the cover opened, and Fig. 5 is a vertical transverse section taken through the rocking shaft.

Similar numerals of reference indicate corresponding parts in all the figures.

My invention has relation to that class of washing-machines having a rubber forming a part of a cylinder and provided with means for rocking the said rubber; and it consists in the improved construction and combination of parts of such a machine, as hereinafter more fully described and claimed.

In the accompanying drawings, the numeral 1 indicates the suds-box, which is mounted upon legs 2 and formed with a rounded bottom, 3, and with a suitable soap-receptacle, 4, at one end, and with a suitable board or rail, 5, for the attachment of a clothes-wringer, and this suds-box has its bottom supported and held toward the rounded edges of the side pieces by means of metallic straps or rods 41, besides by the fastening-nails 42, the ends of the said straps having bolts 43 movably attached to them and inserted through the top-frame of the suds-box, and secured by means of nuts 44 at the upper side of the said frame, the nuts serving to draw the straps up tightly against the rounded metallic bottom, and to thus form a tight joint between the edges of the bottom and the rounded edges of the side pieces of the box.

The suds-box is provided with a cover, 6,

resting with its edges in the rabbets 7, formed in the upper edges of the suds-box, and hinged at one side by means of hinges 8, having their pintles removably inserted into the leaves upon the box, so that the cover may be detached from the box. A leg, 9, or prop is hinged upon the cover near the outer or free edge of the same, and has a turn-button or catch, 10, engaging its free end, so that it may be supported transversely upon the cover when the latter is in position over the box, while the leg or prop may be folded down to support the cover when it is folded down to one side. A pivoted hook, 11, upon the side of the cover serves to engage a staple, 12, upon the edge of the suds-box and to hold the cover closed.

The upper edges of the sides of the suds-box are provided with bearings 12^a and 13, open at the upper sides, and one bearing, 12^a, is provided with a pivoted button or arm, 14, swinging horizontally and closing the bearing, while the other bearing, 13, which extends through the side of the box, is provided with a vertically-swinging arm, 15, the free end of which is held by a turn-button, 16.

Two vertical grooves, 17, forming bearings 18 in the lower ends, extend from the bearings in the inner faces of the sides of the box, and laterally-projecting trunnions 19 slide and rock in these grooves and extend from near the upper edges of the side pieces of the outer rubber, 20, the said rubber having its periphery formed of transverse slats 21, having ribbed inner faces, 22. Pivoted catches or arms 23 are secured upon the upper edges of one side piece of the said rubber, and may engage notches 24 in the inner face of the side piece of the suds-box, serving to hold the rubber stationary when desired. The inner rubber, 25, is provided with side pieces, 26, and with transverse slats 27, having ribbed outer faces, 28, and the side pieces of this rubber are formed with large notches or recesses 29, extending from the upper edges, in which notches upright guide-rods 30 project, having their upper ends secured in the middles of straps 31, secured to the upper edges of the side pieces and crossing the notches or recesses.

A transverse shaft, 32, is journaled in the bearings in the edges of the side pieces of the

suds-box, and has the rods of the inner rubber sliding in perforations 33, so that the rubber may yield to the layer of clothes placed between the two rubbers, and springs 34 are coiled around the guide-rods and bear against the shaft and against the bottoms of the notches or recesses, serving to force the rubber down from the shaft. A segmental cog-piece, 35, is secured upon the shaft inside of the bearing, through which the end of the shaft projects, and meshes with a similar segmental cog-piece, 36, upon the upper edge of the outer rubber, so that the inner rubber may rock the outer rubber in the opposite direction when it is rocked itself. The free end of the shaft is provided with a head, 36^a, having perforations 37 crossing each other at right angles, and a handle or lever, 38, may be inserted through one of these perforations and serve to rock the shaft and rubber, suitable knobs or handles, 39, being secured upon the lever.

The clothes to be washed are placed within the outer rubber, and the inner rubber is thereupon put in place, and it will be seen that both rubbers will be reciprocated in opposite directions when the lever of the inner rubber is rocked, so that the clothes will be subjected to rubbing upon both sides at the same time, and will be rubbed over a considerable surface with a comparative small amount of tilting of the operating-lever, as both rubbers move in opposite direction and an equal space, while the operating-lever is merely rocked the amount the inner rubber is rocked.

When it is only desired to have the inner rubber rocked, the arms or catches of the outer rubber are tilted to engage the notches in the side of the suds-box, and the segmental cog-piece upon the shaft is turned with its sleeve upon the shaft, so as not to engage the cog-piece upon the outer rubber, a transverse pin, 40, serving to secure the sleeve of the cog-piece upon the shaft, and the inner rubber may now be rocked without rocking the outer rubber, which will perform the same function as the stationary ribs upon the inner

side of the suds-box in the usual style of this class of washing-machines. The lever may be secured in the head of the shaft either in a horizontal or in a vertical position, so as to suit operators of different sizes, and so as to allow a person to operate the machine either standing up or sitting down.

When the cover is folded down, it may serve as a receptacle for the washed clothes, the prop supporting it at the side of the suds-box.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States--

1. In a washing-machine, the combination of a suds-box having a rounded bottom, a lower rocking rubber trunnioned within the box and having a segmental cog-piece upon the middle of one edge, and a rubber rocking within the lower rubber and having a segmental cog-piece upon its shaft meshing with the other cog-piece, as and for the purpose shown and set forth.

2. In a washing-machine, the combination of a rocking outer rubber having a segmental cog-piece upon the middle of the edge of one side piece, an inner rubber having the middles of its side pieces cut out to form notches or recesses, and having straps secured to the upper edges of the side pieces and vertical guide-rods extending from the bottoms of the notches or recesses to the middles of the straps, a shaft journaled in the sides of the suds-box of the machine, and having a segmental cog-piece meshing with the cog-piece of the outer rubber, and having the guide-rods sliding in perforations in it, and coiled springs interposed between the bottoms of the recesses and the perforated portions of the shaft, as and for the purpose shown and set forth.

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

ISAAC WHITNEY.

Witnesses:

ELI C. GAUSE,

CHARLES E. QUIRE.