

(No Model.)

2 Sheets—Sheet 1.

J. D. LOCKE.
 WASHING MACHINE.

No. 587,447.

Patented Aug. 3, 1897.

Fig. 1

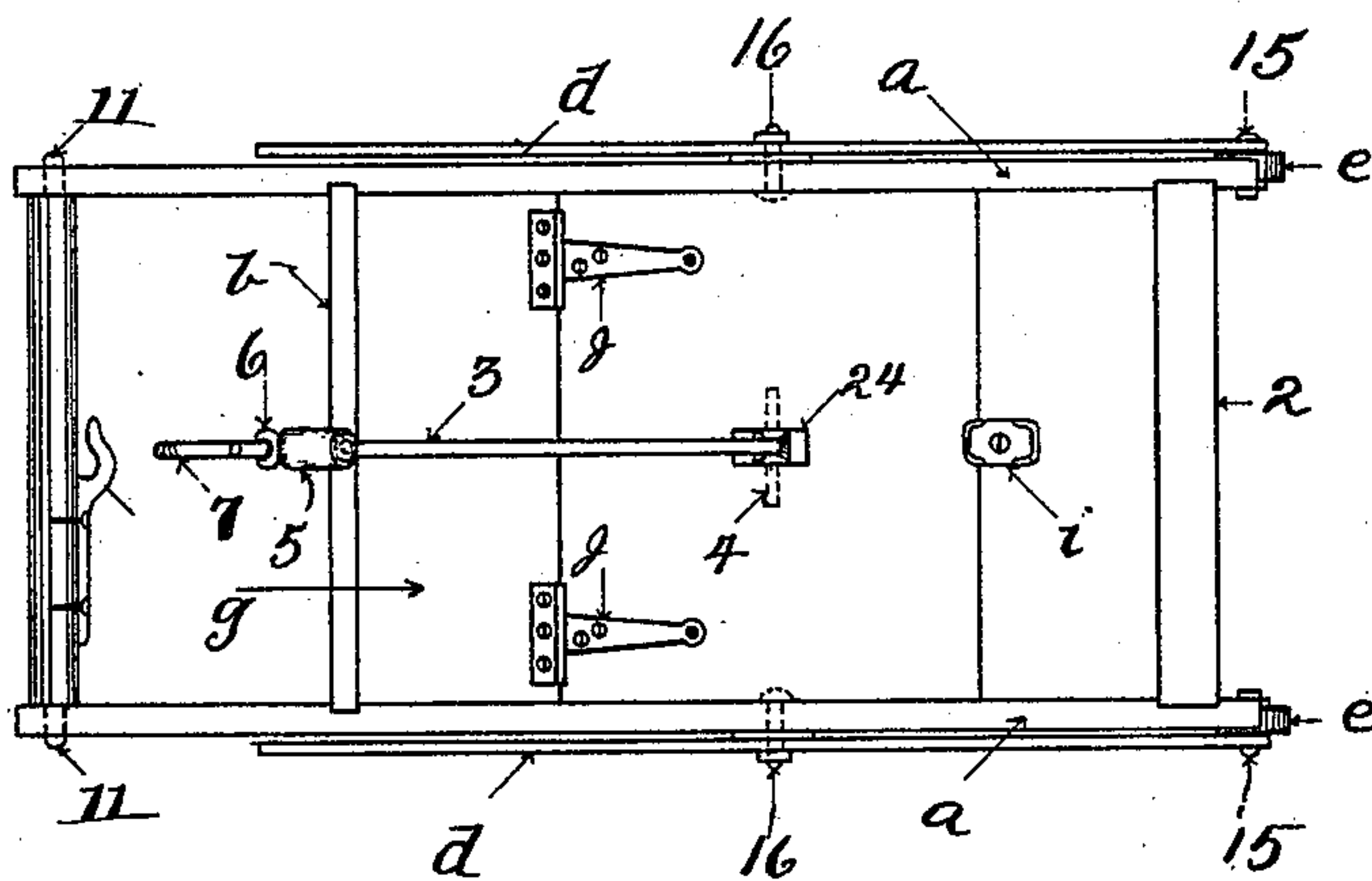
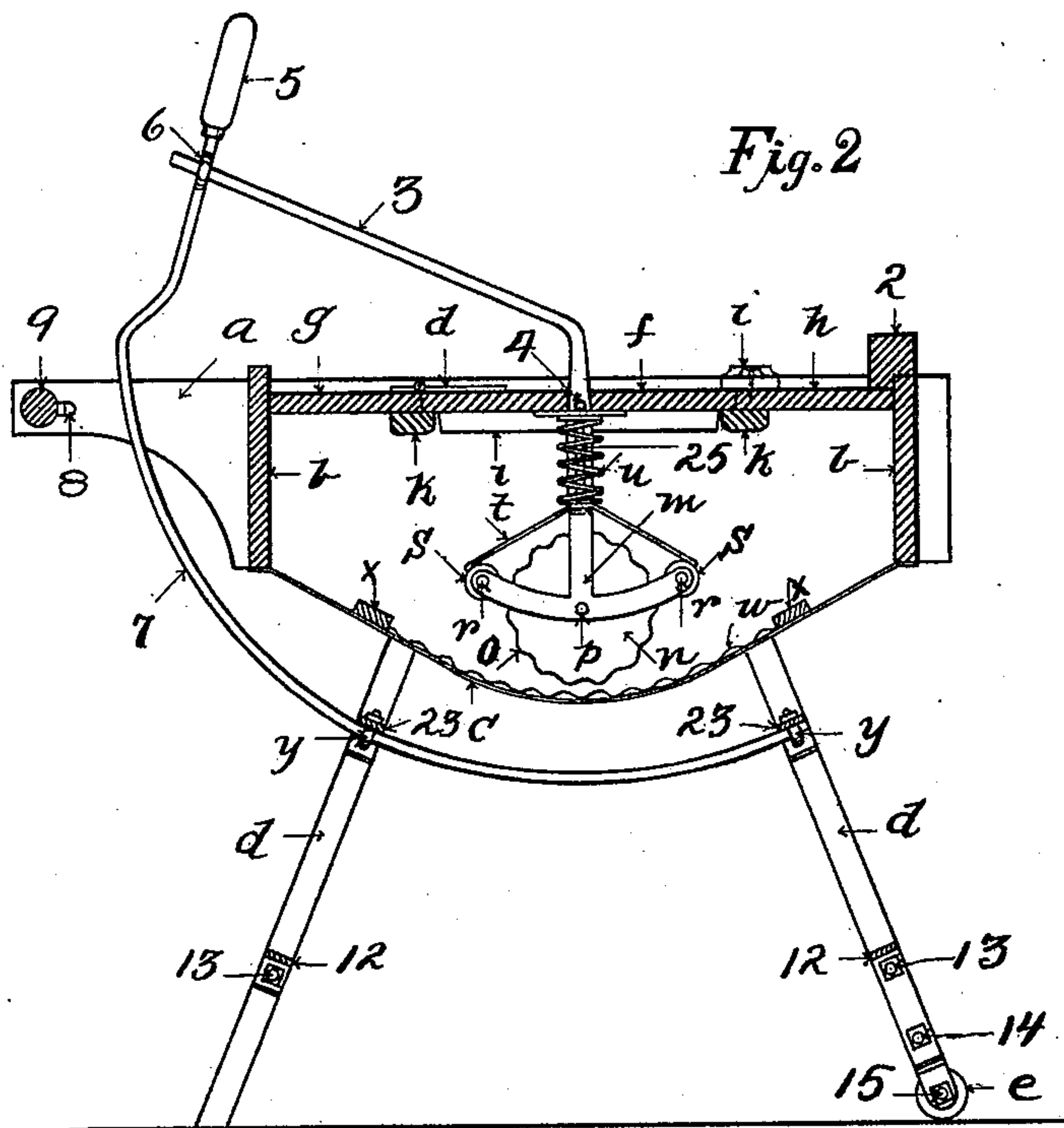


Fig. 2



Witnesses

Jas. L. Brown.
J. H. Tappan

Inventor

By his Attorney,

Joseph D. Locke

John Wedderburn

2 Sheets—Sheet 2.

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Jas. L. Bowen.
J. L. Tappan

Inventor,
Joseph D. Locke,
In Meddaburn

UNITED STATES PATENT OFFICE.

JOSEPH DUAIN LOCKE, OF BENAN, IOWA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 587,447, dated August 3, 1897.

Application filed August 29, 1896. Serial No. 604,316. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH DUAIN LOCKE, a citizen of the United States, residing at Benan, in the county of Carroll and State of Iowa, have invented certain new and useful Improvements in Washing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to washing-machines.

My object is to provide a washing-machine of simple and cheap as well as strong construction, which will be light and easily portable, and can be quickly and easily manipulated to wash the clothes in a superior manner.

Having this object in view my invention consists of a washing-machine comprising certain improved features and novel combinations appearing more fully hereinafter.

In the accompanying drawings, Figure 1 is a plan view of my improved machine; Fig. 2, a sectional side elevation; Fig. 3, an end view, and Fig. 4 a side elevation showing the rubber and cover thrown back.

The letter *a* designates the body or box of my improved washing-machine, said box being provided with ends *b b* and top pieces *g h*. Across the front of the box and at the top thereof extends a beam 2. The main portion of this box is preferably constructed of wood or other light material, but the bottom *c* thereof is made of a single piece of sheet metal, across which extend cross-pieces *x*. On the inside of the bottom there is located a corrugated piece of metal *w*.

The letters *k k* designate cross-pieces which are connected to the top pieces *g* and *h*, respectively, and extend toward each other to form a supporting-ledge for a cover *f*, which is connected to the piece *g* by hinges *j*.

The letter *i* designates a button which serves to keep the cover locked down. It will be observed that this cover is provided with a longitudinally-extending slot 24. The cover also has a depending portion *l*.

At the rear of the machine there is located a cylindrical cross-bar 9, which is provided with journals 11 to permit its being turned, and it has a hook or bracket 8.

On each side of the machine there is located a pair of legs *d*, made from a single piece of metal bent into the shape of an inverted V, each set of legs being connected to the body by a bolt 16. Cross-pieces 12 connect the legs on each side of the body, being fastened thereto by bolts 13. The letters *e e* designate rollers. The front cross brace or piece is extended downwardly and is bent inwardly, and between the ends of said brace and the front legs of the machine the rollers are journaled on bolts 15. In addition to the fastening-bolts 15 there are employed bolts 14. Thus it will be seen that the machine can be readily wheeled from place to place, as found desirable.

The numerals 23 23 designate upper cross-bars which connect the legs, being fastened thereto by bolts 19, and each cross-piece is provided with a hook or hanger *y*.

The numeral 7 designates the operating-lever, which is provided with a handle 5. This operating-lever is made of a single piece of spring-rod, preferably steel, and for the greater part of its length it is bent in the arc of a circle, but is also provided with an inwardly-bent portion adapted for engagement with hook 8, and it has a straight handle portion leading to the handle 5. The lower end of this spring-lever is received in the hooks or hangers *y*, so that it is securely connected to the upper cross pieces or braces 23. The lever is provided with an eye 6 near its handle.

The letter *n* designates a rubber which is provided with a corrugated face *o*.

The letter *m* represents the rubber frame, in which the rubber is journaled on a spindle *p*. This frame is composed of two portions, which are located on each side of the rubber, each being provided with oppositely-extending curved arms, and the ends of these arms are securely connected by respective cylindrical members *s s*, having the ends *r r*. The shank of the frame is provided with a longitudinally-extending guide-slot 25, in which works a pin 4, fixed in the cover of the box. The shank of the frame is bent into a long rearwardly-extending arm 3, which passes freely through eye 6 of the spring-lever. At *t* is shown the upper portion of the frame, comprising two downwardly-extending arms,

which are connected to the slotted shank of the frame, and the lower ends of these arms are secured to the members s s.

The letter *u* represents a coil-spring which encircles the shank of the frame and is interposed between the top of the rubber frame and the under side of the hinged cover. This spring is constantly exerting a tendency to force the rubber frame down, so that the rubber will be pressing against the clothes.

At 18 is shown a vent for drawing off the water in the tub or box, and this is normally closed by a plug 17.

The operation is as follows: The clothes are first placed in the covered box and the water is then poured in. The cover is then closed down and locked by the button. As the spring-lever is rocked back and forth the inside portion 3 of the rubber frame slides through the eye 6 and the rubber is reciprocated in relation to the corrugated bottom of the tub or box, while the coil-spring keeps the rubber down against the clothes, and hence a strong rubbing action results and the clothes are more perfectly cleaned. Whenever it is desirable to draw back the cover, the handle is pulled far enough back to draw the shank out of the eye of the spring-lever, and the latter can then be hooked through bracket 8 and the cover swung back, as shown in Fig. 4.

In operating the device when the operator pushes the spring-lever away from him said lever is brought under tension, and hence there is no necessity of exerting a pull backward on said lever, for it reacts and moves the rubber in an opposite direction.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a washing-machine, the combination with a receptacle for the clothes, of a frame having a slot and provided with an arm, a pin passing through said slot, a rubber journaled in the frame, and a spring-arm having a free portion in slidable engagement with the arm of the frame.

2. In a washing-machine, the combination with a box or tub, of a rubber frame having an arm provided with a slot, a pin passing through the slot, a coil-spring encircling the arm and interposed between the frame and the receptacle, a rubber journaled in the frame, and a spring-operating arm through which the arm of the frame loosely passes.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOSEPH DUAIN LOCKE.

Witnesses:

E. L. WELCH,

WM. N. McNAUGHT.