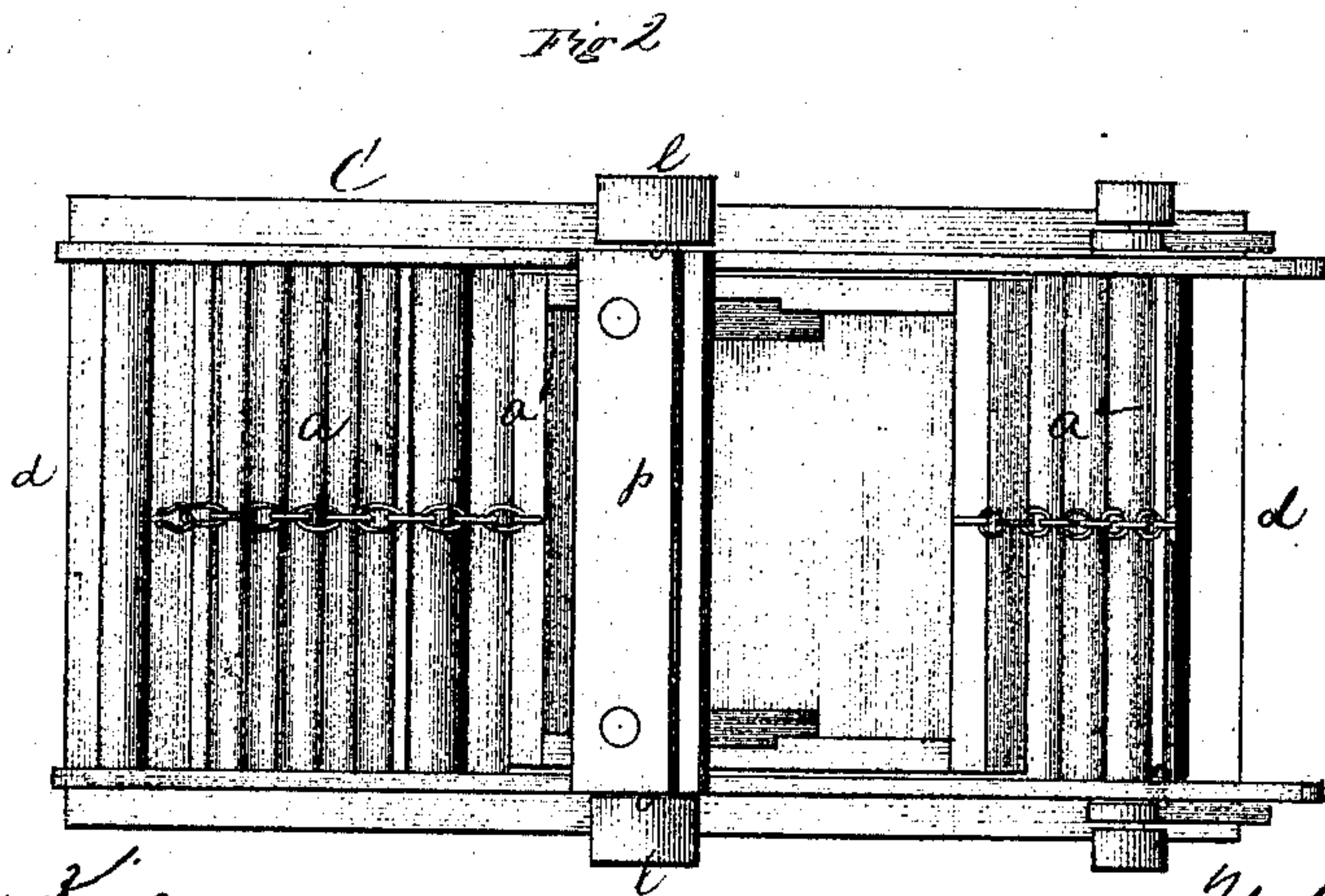
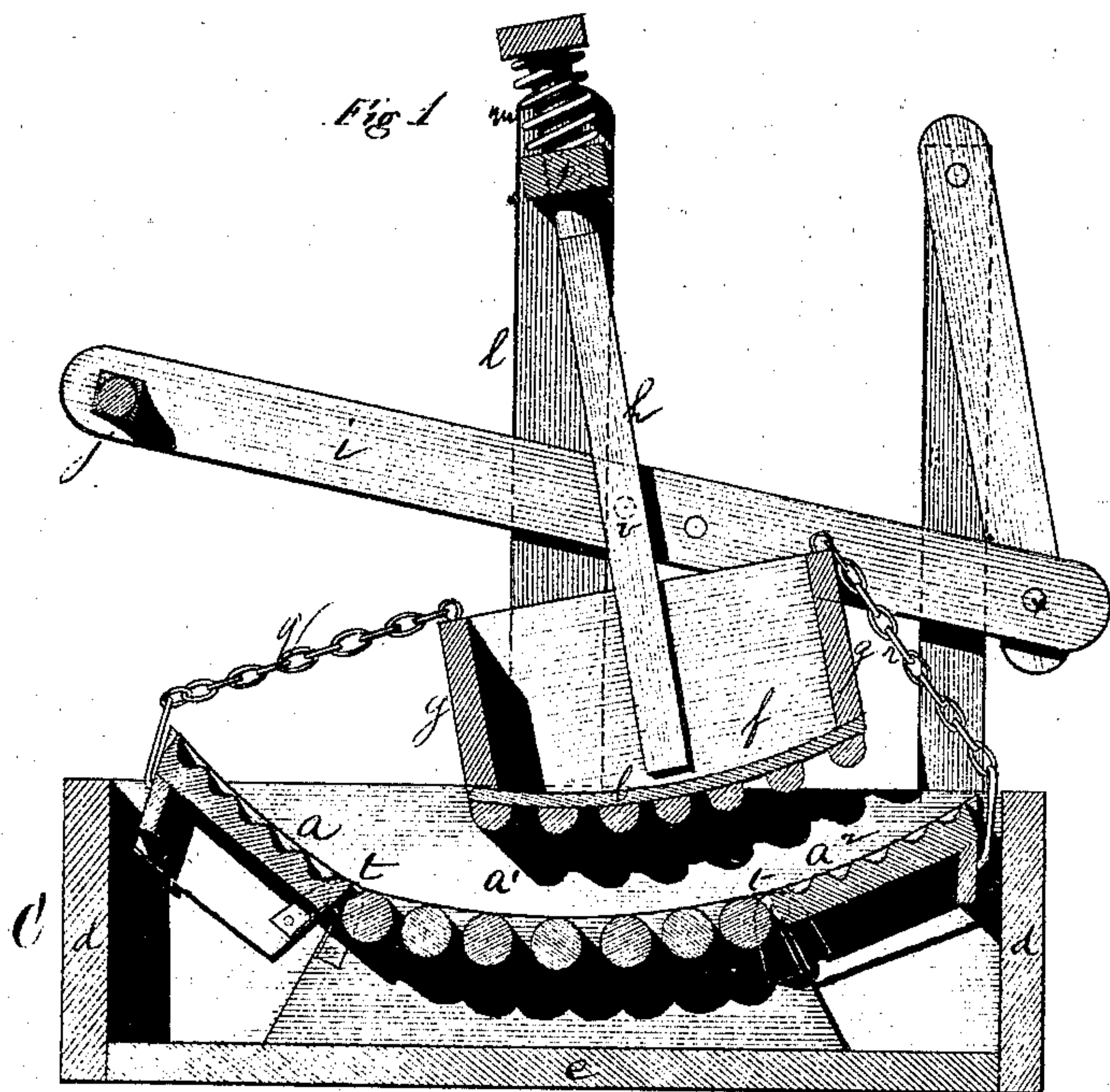


N. W. Calthoun,

Washing Mach.

No. 99842.

Patented Feb. 15. 1870



Witnesses

Harry King  
J. Smith

Inventor:

N. W. Calthoun  
per  
Alexander & Mason  
attys



# United States Patent Office.

N. W. CALHOUN, OF UPPER TRACT, WEST VIRGINIA.

Letters Patent No. 99,842, dated February 15, 1870.

## IMPROVED WASHING-MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, N. W. CALHOUN, of Upper Tract, Pendleton county, West Virginia, have invented an Improvement in Washing-Machines, of which the following is a full and exact description, reference being had to the accompanying drawings and to the letters of reference marked on them.

Figure 1 represents a section view of the machine, and

Figure 2, a plan view; and

The same letters represent the same parts in each figure.

In them, *O* represents an oblong rectangular box or tub, of which *d d* are the ends, and *e* the bottom.

In it is placed the wash-board *a<sup>2</sup> a<sup>1</sup>*. This board is so curved as to constitute a segment of a circle, of which the center is at *o* in the frame above. This board is divided into three sections by the hinged joints at *t t*. Of these sections, the middle one, *a<sup>1</sup>*, is secured firmly in its place by being framed or otherwise fastened to the sides of the tub.

The end sections rest freely against the ends of the tub, and are left free to move upon their hinges, as the machine is operated.

The wash-board may be made of fluted stuff, or of rollers suitably framed, or of both combined.

On each side of the oblong box or tub, equidistant from the ends, are fastened upright posts or strips *l*.

Holes in the upper ends of these pieces are made to receive the ends of the cross-piece *p*. These ends are round, so as to revolve freely in the holes at *o*.

Through the cross-piece other holes are made to receive the ends of the perpendicular pieces *h*, to which are suspended the rubber *f*. This rubber is a box, of which *g g* are the ends, and *b* the bottom. The latter is convex, to correspond with the concavity of the wash-board, and may be made as is the wash-board, either of fluted stuff or of rollers, suitably framed together.

Swinging upon the center of motion at *o*, the rubber is carried backward and forward over the curved surface of the wash-board by the power applied to the lever *i i*. The fulcrum of this lever is a screw, *v*, in the frame-piece of the rubber, whilst its end is held by the screw *x* in the oscillating rod or bar, which swings on its center.

To the ends of the uprights *h*, above the cross-piece *p* coiled springs *m* are attached, by means of which the leverage bearing upon the clothes is diminished with the more facility by the operator, and when the hand is removed from the lever at *j*, the rubber is lifted from the clothes.

To the ends of the hinged sections of the wash-board chains *q r* are attached, which hook to the upper edge of the ends of the rubber box.

When the machine is to be operated, one chain is detached, and the rubber is lifted out of its bed by the spiral springs. The water and soap are put in the tub, and the clothes distributed upon the wash-board. The rubber is then brought down by pressure on the lever, and the chain fastened to its place. A reciprocating motion backward and forward is then given to the rubber by the hand applied to the handle *j* of the lever. This movement is attended by a downward pressure of the lever, which is more or less powerful as the clothes may require severe or gentle treatment.

As the rubber is pushed from the operator toward the farther extremity of the tub, the chain *r* lifts the forward section *a<sup>1</sup>* of the wash-board, which, turning on its hinges, tilts the clothes over, and throws them under the retreating end of the rubber. When the movement is reversed, the section *r* is thrown back to its place, the clothes are carried forward between it and the rubber, and, at the same time, the section *a<sup>2</sup>* is lifted by its chain *q*, and the clothes which were upon it tilted over and thrown under that end of the rubber. The operation is repeated until the clothes are cleansed, when the chain *r* is detached, the rubber rises, and the clothes are removed.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination with the box *O* of the hinged wash-boards *a a<sup>2</sup>* and central boards *a<sup>1</sup>*, chains *q r*, rubber box *b f*, bars *h*, sock-shaft *p*, springs *m*, and standards *l*, the rubber being operated by means of the levers *i*, all constructed substantially as specified.

N. W. CALHOUN.

Witnesses:

SAMUEL J. BAIRD,  
JNO. K. WOODS.