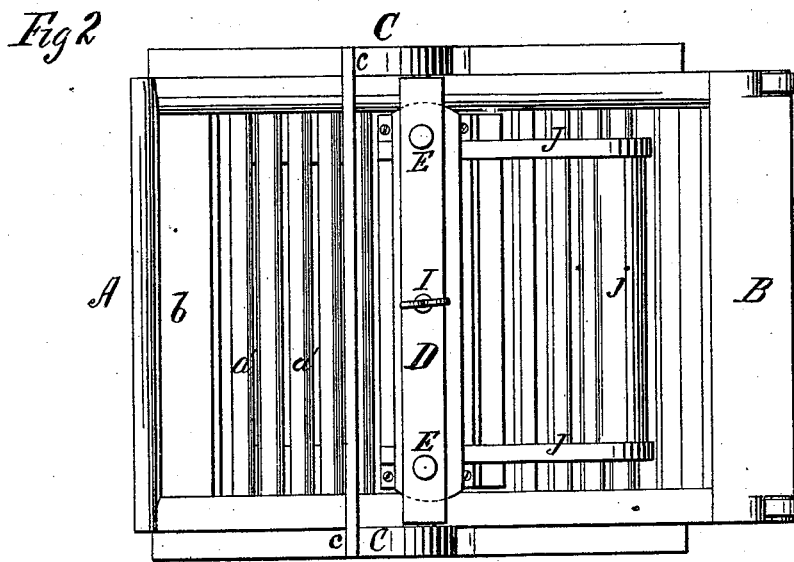
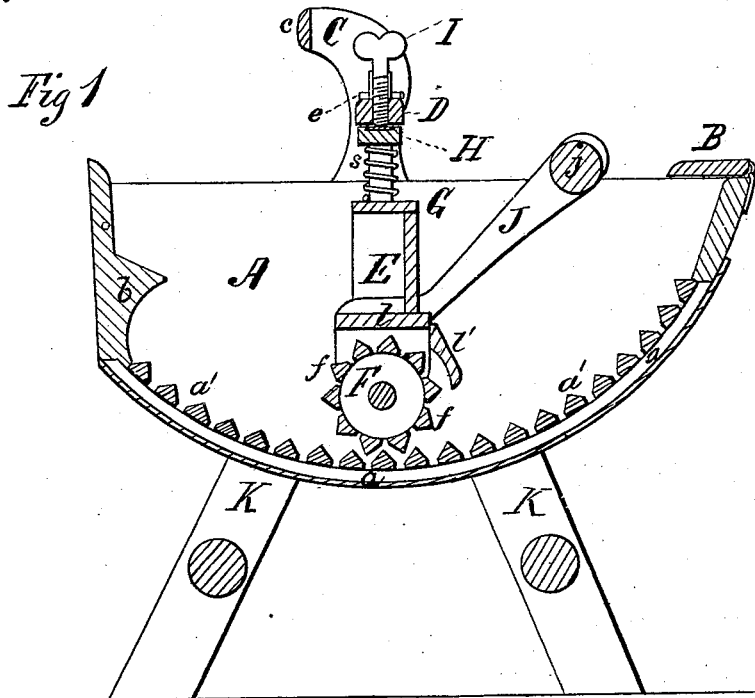


J. W. JAMES & J. STREIT.  
Washing-Machine.

No. 159,827.

Patented Feb. 16, 1875.



WITNESSES

*Robert Everett,*  
*Geo. C. Upshaw*

INVENTORS

*John W. James*  
*Josiah Streit*  
*Chipman Hosmer & Co*

Attorneys

J. W. JAMES & J. STREIT.  
Washing-Machine.

No. 159,827.

Patented Feb. 16, 1875.

Fig 3

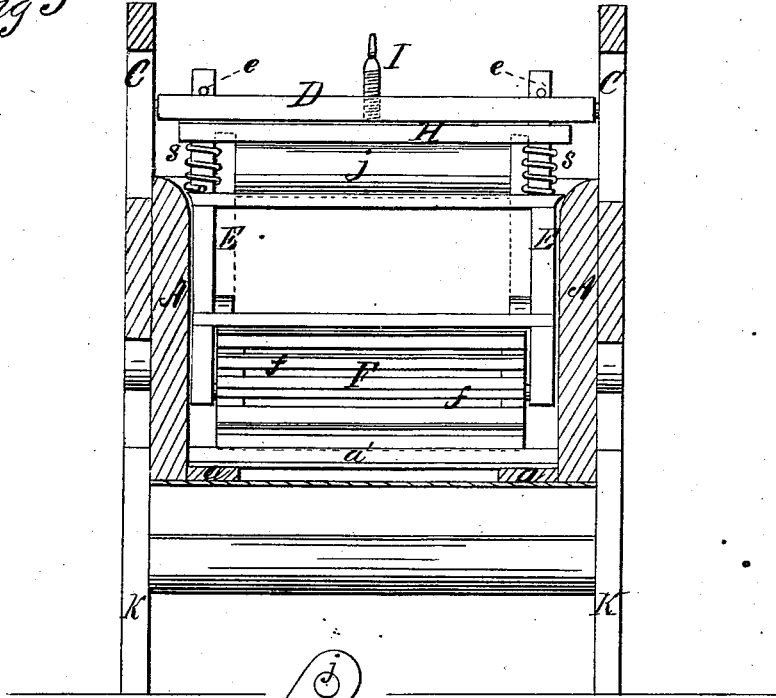
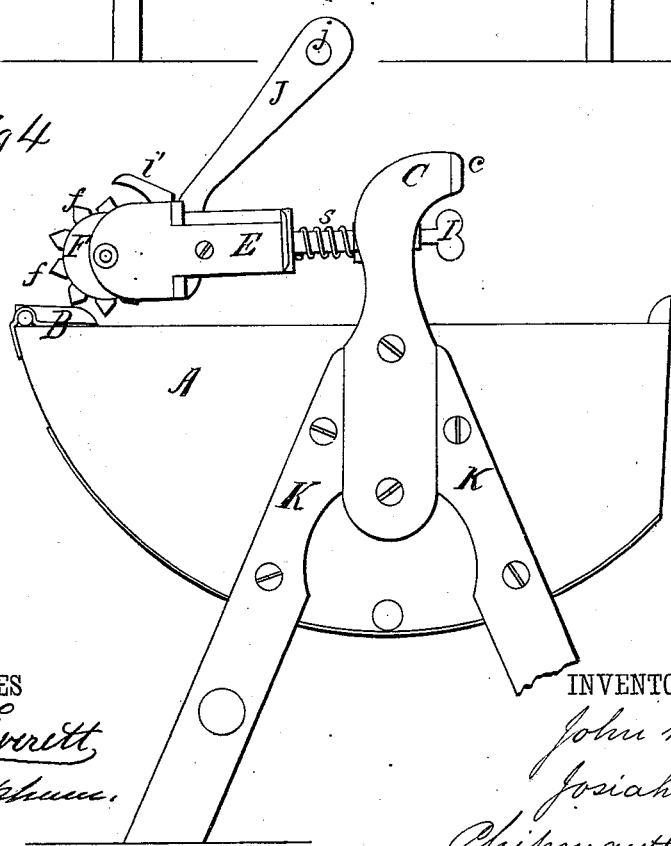


Fig 4



WITNESSES

*Robert Everett*  
*Geo. C. Upshum.*

INVENTOR

*John W. James*  
*Josiah Streit*  
*Chipman & Co*  
Attorneys

# UNITED STATES PATENT OFFICE.

JOHN W. JAMES AND JOSIAH STREIT, OF CENTRE TOWN, MO., ASSIGNOR  
TO JOSIAH STREIT AND JAMES STREIT, OF SAME PLACE.

## IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **159,827**, dated February 16, 1875; application filed  
July 11, 1874.

*To all whom it may concern:*

Be it known that we, JOHN W. JAMES and JOSIAH STREIT, of Centre Town, in the county of Cole and State of Missouri, have invented a new and valuable Improvement in Washing-Machines; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a longitudinal sectional view of our washing-machine. Fig. 2 is a plan view of the same. Fig. 3 is a transverse sectional view of the same. Fig. 4 is a side view of the same.

This invention has relation to washing-machines for which Letters Patent were issued to us bearing date the 5th day of September, 1871, and numbered 118,774; and the novelty consists in the employment of a rubber rotating in bearings in oscillating hangers provided with strips, in combination with a check-rib, to prevent the splashing of water in the suds-box, as hereinafter more fully set forth.

In the annexed drawings, A designates a suds-box, having upright sides, and a curved bottom, to correspond to the curve described by a rotary dasher hereinafter to be explained. This curved bottom is preferably of zinc, and is provided at each of its lateral edges with a curved strip, *a*, upon which are removably secured transverse ribs *a'*, having beveled upper and inner surfaces, which ribs are arranged with spaces between them to permit of the passage of water through their interstices. The end of this suds-box opposite to that at which the operator stands is cut off, as shown in Fig. 1, and is provided with an inwardly-curving check-rib, *b*, against which the water impinges in the forward movement of the rubber, and is deflected backward into the lower part of the suds-box, thereby preventing the splashing of the water upon the operator. B designates a hinged extension of the bottom of the suds-box A, which vibrates freely upon the upright sides thereof, and which serves to prevent water from escaping from the said suds-box upon the person of an

operator, when it is dashed to and fro by the rotating rubber. It also serves, when in the position shown in Fig. 1, as a rest for the rubber, and it prevents it from rotating downwardly into the water in the suds-box and becoming water-soaked when the said rubber has been rotated upward and placed upon it. C represents standards secured to the sides of the suds-box at or near the middle of their length, and united at their free ends by a cross-head, *c*. These standards afford bearings near their upper ends for a transverse rotating bar, D, into which are suitably-mortised hangers, E, the lower ends of which afford bearings for a rotating cylindrical dasher or squeezer, F, having a hollow interior, and armed with transverse ribs *f*, corresponding in form with those of the suds-box, and, like them, arranged so as to be removable when worn out, and spaced to permit the escape of water through their interstices. The hangers E may be secured to the transverse bars D by means of pins *e*, or in any other suitable manner, and their upper ends are rounded for the purpose of permitting springs *s*, either of coiled metal wire, rubber, or their equivalent, to be placed thereon. The lower ends of these springs bear against a transverse brace, G, of the hangers E, and their upper ends bear against a vertically-movable transverse bar, H, which is guided by the rounded portions of the hangers E, and is actuated to bear down upon, and thereby increase, the resisting power to upward strain of the springs *s* by means of a thumb-screw, I, passing through the rotating bar D, its point bearing on the tension-bar H.

It will be evident that by screwing up the thumb-screw I the tension-bar H will be forced down upon the springs, causing them to contract, and in proportion increasing their resistance to upward strain; hence, when a garment is being washed, the operator can increase or diminish at will the degree of pressure to which it is subjected to correspond with the degree of friction necessary to effect a thorough cleansing, and at the same time to allow it to be of such a yielding nature as to permit the rubber to pass over buttons without mashing them off.

With a view to prevent the splashing of water from the rotating rubber upon the operator, we have closed the top and sides of the hangers E, as is shown in Fig. 1, at *l l'*, by means of strips.

When a clothes-washer has been in use some time it is of frequent occurrence that the ribs forming the corrugated rubbing-surfaces become worn, and that they thus become less effective, but by applying them removably to the rotating dasher and to the suds-box any carpenter may replace them in a few moments and render a useless instrument as effectually operative as when new.

The rotating rubber is caused to rotate by means of a lever composed of arms J and a connecting handle-brace, *j*, applied upon the inside of the hangers E.

We have also caused the washer to be shown in the drawings as raised upon legs K K, but may attach it at will to a wash-bench or other convenient article in a laundry.

What we claim as new, and desire to secure by Letters Patent, is—

The rubber F, rotating in bearings in the oscillating hangers E, in combination with the strips *l l'* and check-rib *b*, substantially as described, and for the purpose set forth.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

JOHN WILLIAMSON JAMES.  
JOSIAH STREIT.

Witnesses:

M. A. DUNLAP,  
SIMON CRONIN.