(No Model.)

# M. BURGESS.

## WASHING MACHINE.

No. 481,102. Patented Aug. 16, 1892.

Fig 1

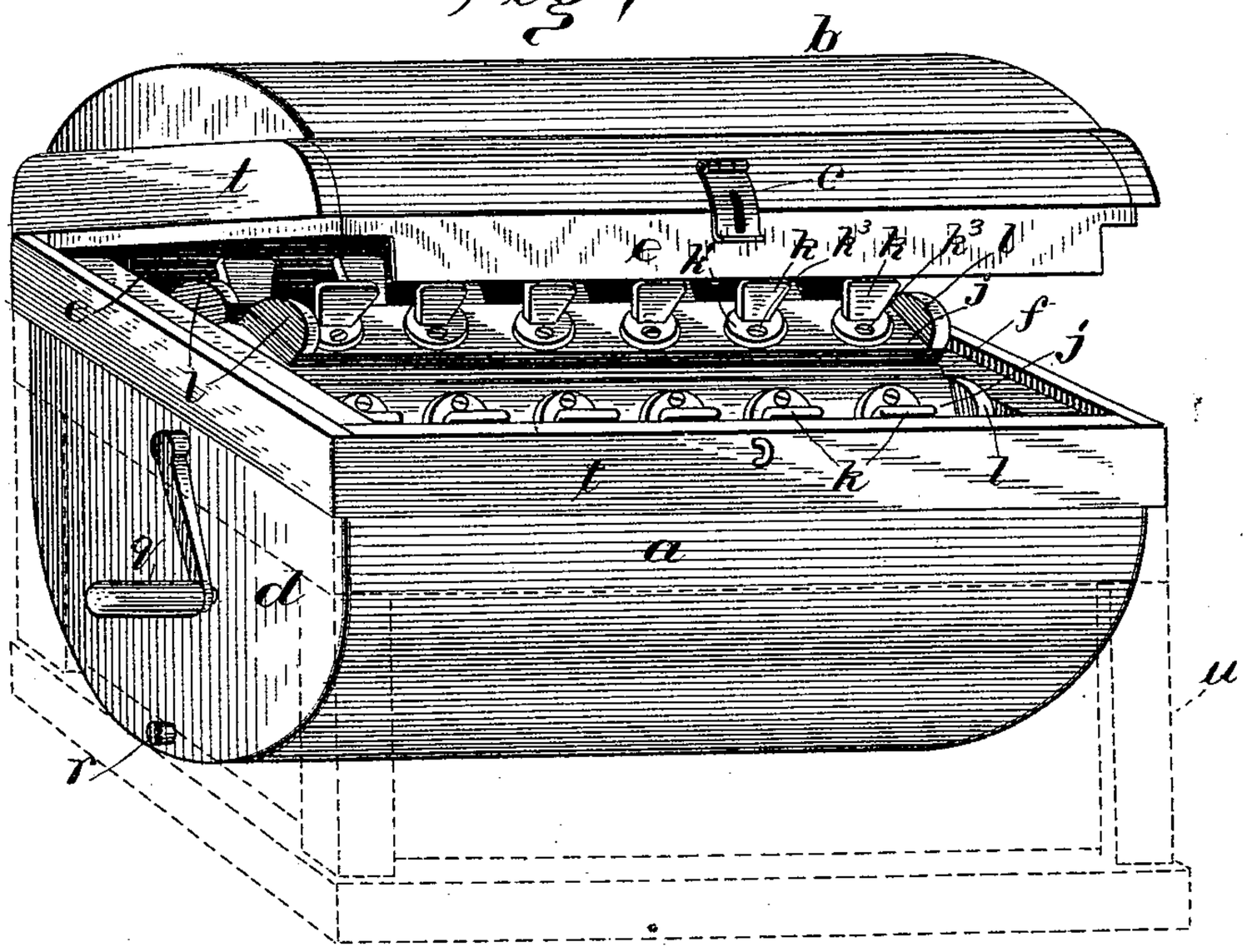


Fig 2

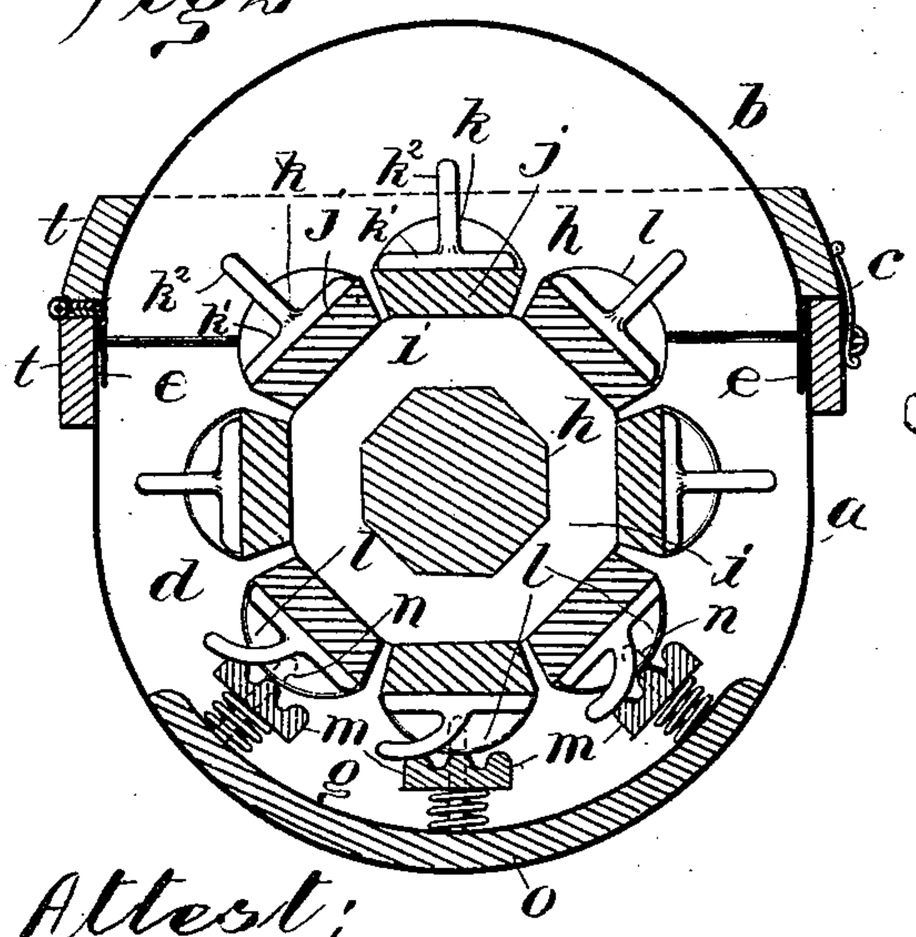


Fig 3


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# UNITED STATES PATENT OFFICE.

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## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 481,102, dated August 16, 1892.

Application filed March 2, 1892. Serial No. 423,479. (No model.)

*To all whom it may concern:*

Be it known that I, MELANCTHON BURGESS, a citizen of the United States, residing at St. George, in the county of Washington and Territory of Utah, have invented certain new and useful Improvements in Washing-Machines; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention has special reference to that class of washing-machines in which a roller is employed to operate in conjunction with a bed; and the invention consists of certain novel features and combination or arrangement of elements, which will be more fully described hereinafter, and pointed out in the claims.

Referring to the accompanying drawings, which illustrate a washing-machine embodying the essential features of my invention, Figure 1 represents a perspective view, partly broken away; and Fig. 2 is a cross-section, and Fig. 3 is a detail in perspective showing the construction of the washing-bed.

The reference-letter *a* represents the casing of my improvement, having the tightly-fitting lid or top *b*, held in place by the usual clasp *c*.

Both the body portion and top of the machine, with the exception of their ends *d*, are constructed of galvanized iron. The galvanized iron, of which the top is constructed, extends downwardly some distance beyond the ends and serves to insure a water-tight joint. This is shown at *e* in the drawings.

Extending around the body of the machine about midway of the same and on the lower portion of the top *b* are two cleats or braces *t*, which serve to strengthen the machine and to form a bearing-place for the upper or supporting part of the usual framework *u*.

In the body portion *a* is journaled a cylinder or roller *f*, which operates, as hereinbefore stated, in conjunction with the bed or wash-board *g*. This roller is formed of the hexagonal core *h*, having correspondingly-shaped end pieces *i* secured to its ends. To these end pieces are securely fastened the slats *j*, provided with the projecting fan-shaped rubber scrubbers *k*. The scrubbers *k* consist of a circular base-piece *k'*, having the fan-shaped arm $k^2$ formed integral therewith, and screw-holes $k^3$, by which they are fastened to the slats *j* in such a position that the arm $k^2$ will be substantially parallel with the slats of the roller. On each end of the slats *j* is fixed a semicircular cam *l*, which co-operates with the bed *g* in a manner that will be fully explained hereinafter. The bed or wash-board *g* is formed of the corrugated slats *m*, which have the L-shaped guides *n*, passing through each end and into the curved base-pieces *o* and sides of the body portion. Coil-springs *p* are interposed between the slats *m* and base-pieces *o*, whereby they are made to yield to the action of the scrubbers. A crank or handle *q* is keyed to the shaft of the roller, by which the machine is operated. The usual cock or faucet *r* is located in the body portion, by which the water or suds may be drawn off.

To use my improved machine, the body portion is filled with boiling water and suds and the clothes to be washed are placed so as to turn with the roller. The lid or top is then securely fastened in place and the roller, through the medium of the handle or crank, is rotated. As the roller turns the cams *l* on the ends of each slat *j* engage the yielding slats *m* of the bed and pushes them down. After the first cam passes over the slat it by its spring-power immediately rises. When the next cam passes over the slat, it is again pushed down. This operation is continued during the entire washing process. By this arrangement it will be readily seen that the slats are given an intermediate reciprocating or jumping movement, which greatly adds to the efficiency of the machine. The scrubbers *k* are also brought into play and serve to rub the clothes against the bed *g* in a manner very similar to the movement of the human hand against the old wash-board.

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

1. A bed for washing-machines of the class herein described, consisting of a series of independent slats, L-shaped guides passing through their ends, secured to circular base-pieces in the bottom of the body, and coil-

springs interposed between the slats and the said circular base-pieces and embracing the guides, in the manner substantially as described.

2. A washing-machine having a bed and a roller, in combination with flexible scrubbers secured to the roller, said scrubbers consisting of a circular base-piece having a fan-shaped arm formed integral therewith, in the manner substantially as set forth.

3. In a washing-machine, the combination of a series of independent spring-actuated slats secured to the bottom of the body portion and forming the bed of the machine, a revoluble roller having a number of flexible scrubbers secured to its periphery and operating in conjunction with the said bed, and a series of semicircular cams secured to the roller and adapted to engage the seats of the bed, whereby said slats are given an intermediate reciprocating or jumping motion, substantially as described.

4. A washing-machine having a bed consisting of two or more circular base-pieces, a number of corrugated slats, L-shaped guides passing through the ends of said slats and secured to the base-pieces, and springs interposed between the said base-pieces and slats, in combination with a revoluble roller having a series of flexible scrubbers and cams secured thereto and adapted to engage the slats, substantially as described.

5. In a washing-machine, the combination of a bed composed of a number of independent spring-actuated slats, a revoluble roller operating with the bed, and a series of cams secured to the roller and adapted to actuate the slats, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

MELANCTHON BURGESS.

Witnesses:

JOHN L. SMITH,

EPRAIM WILSON.