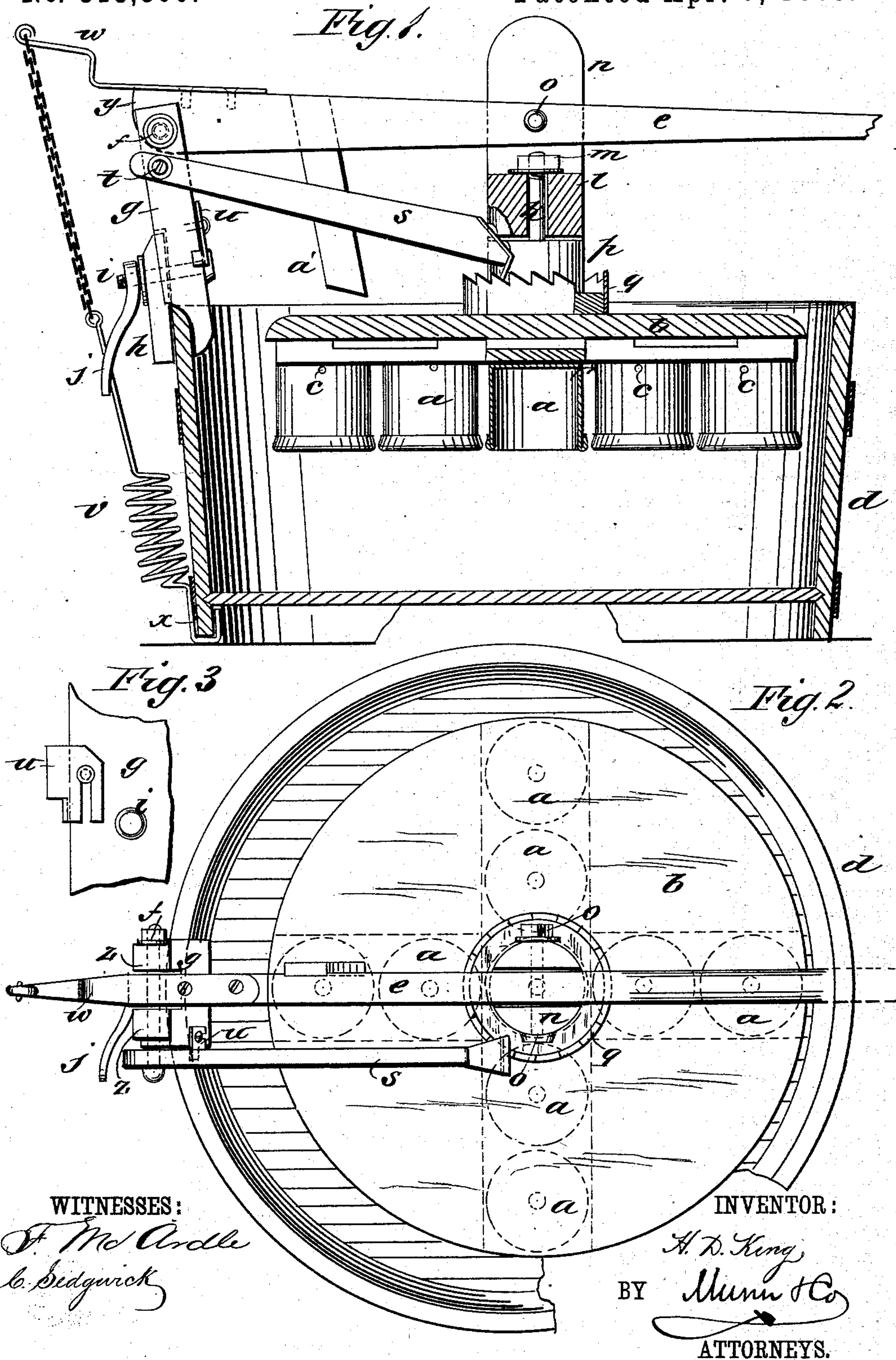


(Model.)

H. D. KING.
WASHING MACHINE.

No. 315,300.

Patented Apr. 7, 1885.



UNITED STATES PATENT OFFICE.

HENRY DEAN KING, OF NEVADA, MISSOURI.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 315,300, dated April 7, 1885.

Application filed March 23, 1884. (Model.)

To all whom it may concern:

Be it known that I, HENRY DEAN KING, of Nevada, in the county of Vernon and State of Missouri, have invented a new and Improved Washing-Machine, of which the following is a full, clear, and exact description.

This invention pertains to improvements in washing-machines, having for its object to effect the thorough and expeditious cleansing of the articles or fabrics; and it consists of the sundry combinations of parts and their construction, substantially as hereinafter fully set forth and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a transverse sectional elevation of my improved washing-machine. Fig. 2 is a plan view, and Fig. 3 is a detail.

I attach hollow projecting beating-studs *a* in the form of inverted cups to the lower side of the dasher *b*, for beating the clothes more effectually than such studs can in the solid form, by the action that the forcing of the clothes in and out of the hollow spaces of the studs causes, making vent-holes *c* at the top for allowing the air to flow in and out, so as not to obstruct the desired action by plenum or vacuum, and suspend said dasher in the upper part of the tub *d* from a lever, *e*, having a fulcrum, *f*, in the top of a standard, *g*, adapted for detachable connection to the top of the tub at one side by clamping thereon with a jaw, *h*, and a vise-screw, *i*, with a handle, *j*, the standard having a notch cut in the lower end to drop down inside of the tub to form the other jaw of the clamp. The dasher *b* is suspended from the lever *e* by the vertical pivot-rod *k*, fitted to hang from the block *l* by the nut *m*, so that the dasher may turn freely, and the block *l* has cheeks *n*, between which the lever is connected to it by the pivot *o*. The lower end of the block *l* bears on the top of a center stud, *p*, of the top of the dasher, to apply the pressure of the lever *e* to the dasher, and to which the pivot-rod *k* is attached. A ratchet-collar, *q*, is fitted to the top of the dasher, a little larger than

the stud *p*, and having notches in the upper edge, with which the end of the pawl *s* engages at the beginning of the rising movement of the dasher, and which shifts the dasher around to the extent of one or more of the teeth of the ratchet by the effect of the swing of the pawl on its pivot *t*, located in a higher plane than that in which the ratchet is when the pawl drops into the teeth. A vertically-adjustable stop, *u*, is attached to the lever and pawl supporting standard *g*, to prevent the pawl *s* from swinging lower than is desired for properly passing the teeth of the ratchet at times when the dasher may drop so low that the pawl might swing away from the ratchet, so that it would not lodge on the ratchet when rising again. A spring, *v*, is connected to a rear extension-arm, *w*, of the lever for assisting in the raising of the dasher to lessen the labor of the operator for that part of the work. Said spring has a hook, *x*, at the lower end, adapted to hook under the bottom of the tub detachably for ready connection and removal of the same, as desired. The lever *e* and the standard *g* are suitably contrived at the pivot-joint for allowing the dasher to be swung up and far enough back to lodge in that position by the end *y* of the lever coming to a bearing in the bottom of the slot between the cheeks *z* of the standard *g*, to which the lever is pivoted, and to stay the dasher so as not to swing down on the point *o* a strut, *a'*, is connected to the lever between the standard *g* and the dasher-connection, which maintains the dasher about parallel with the lever when so upturned. In this example the cups *a* are arranged in two rows crossing each other at right angles and in the center of the dasher; but more may be attached and in any different order of arrangement, as desired.

It will be seen that the apparatus can be readily attached to and detached from any ordinary wash-tub.

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

1. The combination of pawl *s* with the dasher *b*, having ratchet-collar *q* and center

stud, *p*, and connected by the vertical pivot
k with the cheek-block *l*, pivoted to lever *e*,
said pawls and said lever *e* being pivoted to
the standard *g*, attached to the side of the tub,
5 substantially as described.

2. The combination of the strut *a'* with the
lever *e* and dasher *b*, said dasher being sus-

pended from the lever and the lever being
pivoted to the standard *g*, substantially as de-
scribed.

HENRY DEAN KING.

Witnesses:

J. C. MURRAY,
T. F. GRAY.