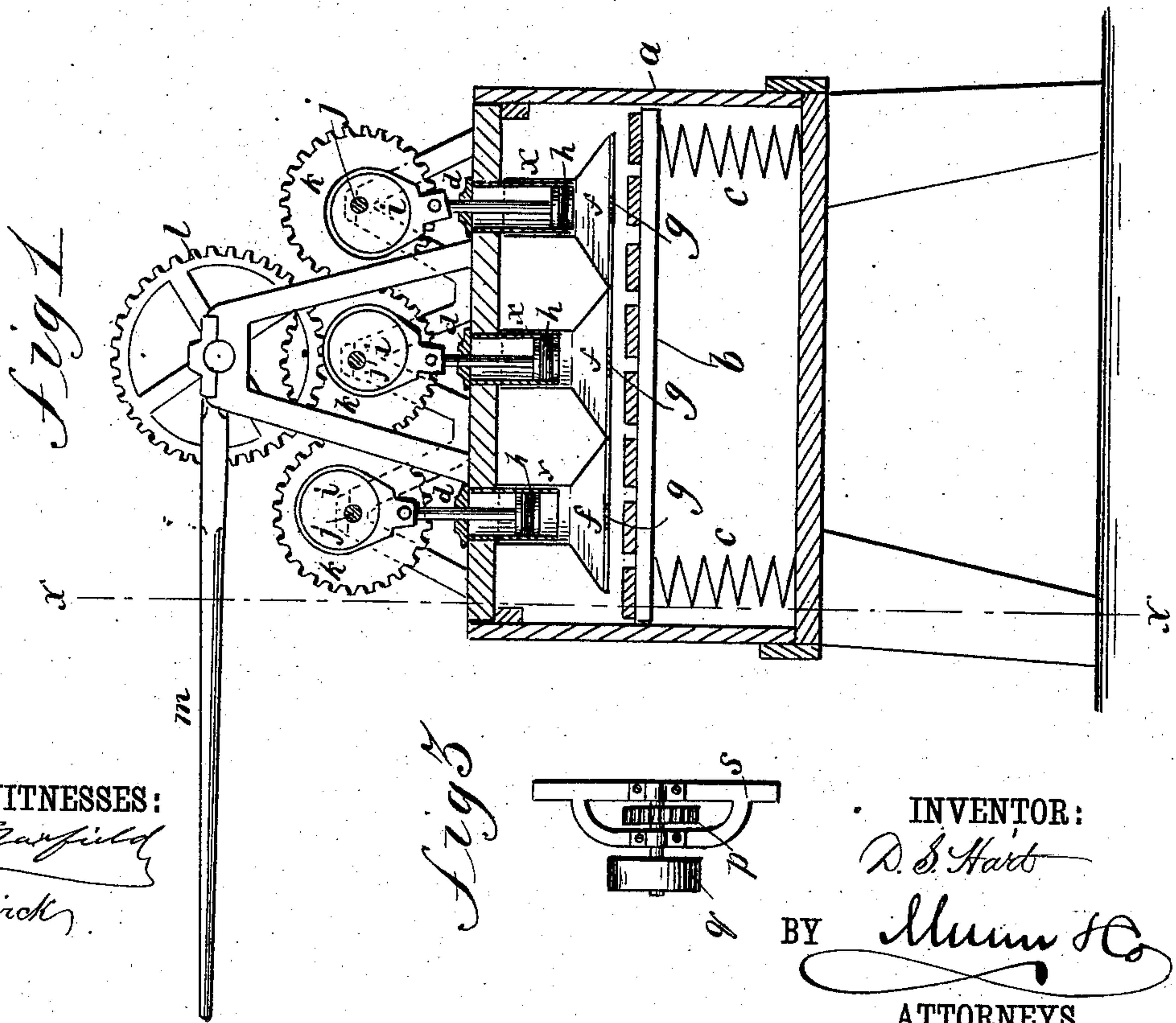
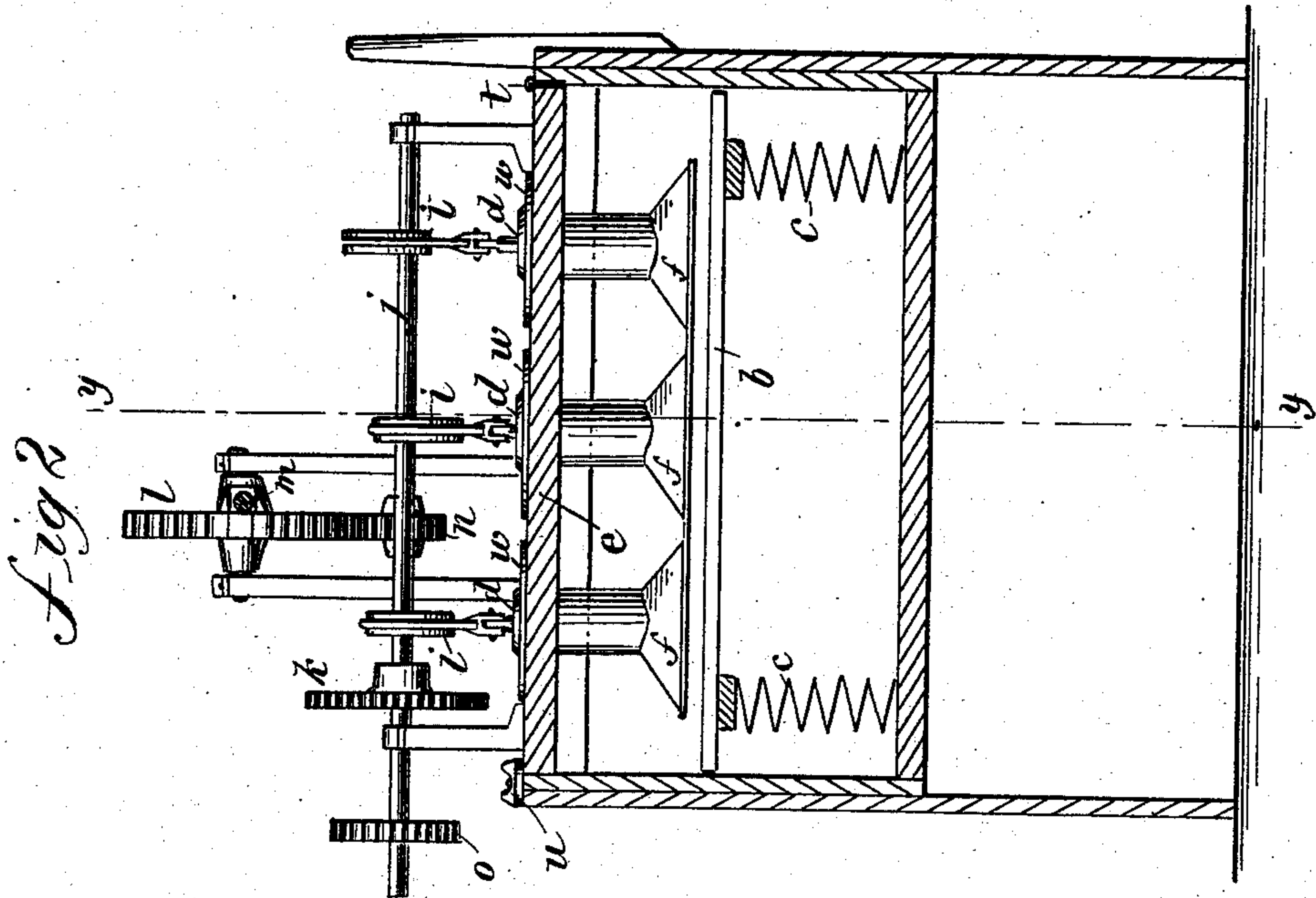


(Model.)

D. S. HART.
WASHING MACHINE.

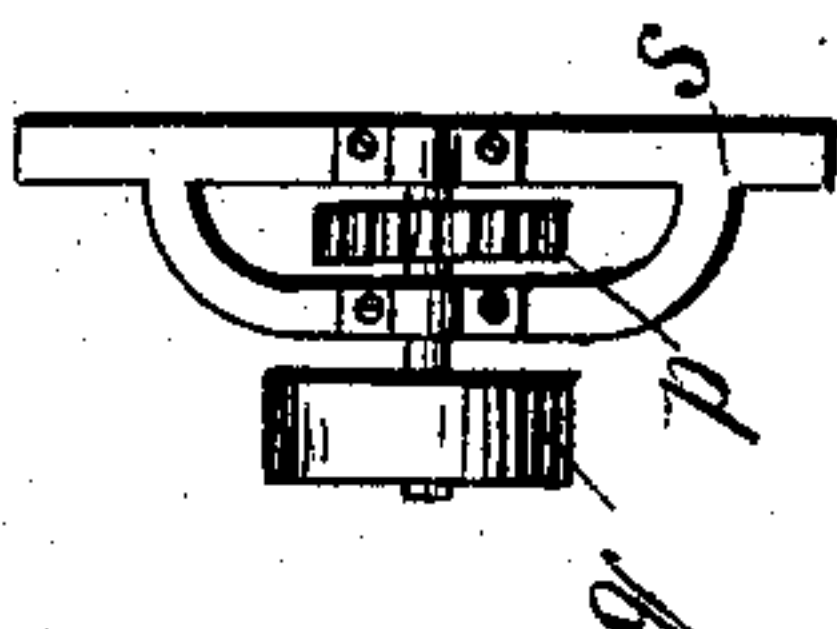
No. 290,047.

Patented Dec. 11, 1883.



WITNESSES:
J. D. Garfield
C. Sedgwick

Fig 3



INVENTOR:
D. S. Hart
BY *Mum & Co*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

DAVID S. HART, OF PARADISE, ILLINOIS.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 290,047, dated December 11, 1883.

Application filed May 31, 1883. (Model.)

To all whom it may concern:

Be it known that I, DAVID S. HART, of Paradise, in the county of Coles and State of Illinois, have invented a new and Improved Washing-Machine, of which the following is a full, clear, and exact description.

The invention will first be described in connection with the drawings, and then pointed out in the claim.

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

Figure 1 is a sectional elevation of my improved washing-machine, taken on the line *y y* of Fig. 2. Fig. 2 is a sectional elevation on line *x x* of Fig. 1, and Fig. 3 is a detail.

Within the tub *a*, I arrange a rack, *b*, on springs *c*, and over the rack I arrange a series of vertical pumps, *d*, by suspending them from the cover *e*, said pumps having open lower ends, and also having a large and preferably square funnel, *f*, attached to said lower ends, to include a large area in the field of the suction of each pump, said funnels being provided with cross-bars *g*, to prevent the clothes from being drawn up into them. The pistons *h* of the pumps are connected by eccentrics *i* with shafts *j*—say three to each shaft—and three or more shafts are geared together by a gear-train, *k*, with which a driving-wheel, *l*,

to be operated by a hand-lever, *m*, is geared by pinion *n*; or power may be applied directly to one of the shafts *j* by the wheel *o* and a pinion, *p*, and pulley *q*, mounted in a bracket, *s*, to be attached to the side of the tub. The cover *e*,

to which the pumps are attached, is removable, to allow of putting in and taking out the clothes, said cover being hinged to the tub at *t*, and having a button, *u*, to fasten it down.

The pump-cylinders may have flanges *w* attached to them at the upper end, for a simple means of securing them to the cover *e*, and the funnels *f* may be attached to the cylinders by a tube, *x*, fitted upon them from below the cover, and soldered or otherwise secured so as to be air-tight.

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

In a washing-machine, the combination, with a tank or tub having a cover, of a series of pumps having cylinders passing through said cover, and grated and funnel-shaped at the lower ends, hand mechanism for operating said pumps, and a spring-supported rack to receive the clothes, whereby the clothes may be cleansed, as described.

DAVID S. HART.

Witnesses:

AMBROSE Y. HART, SR.,
MARY C. HART.