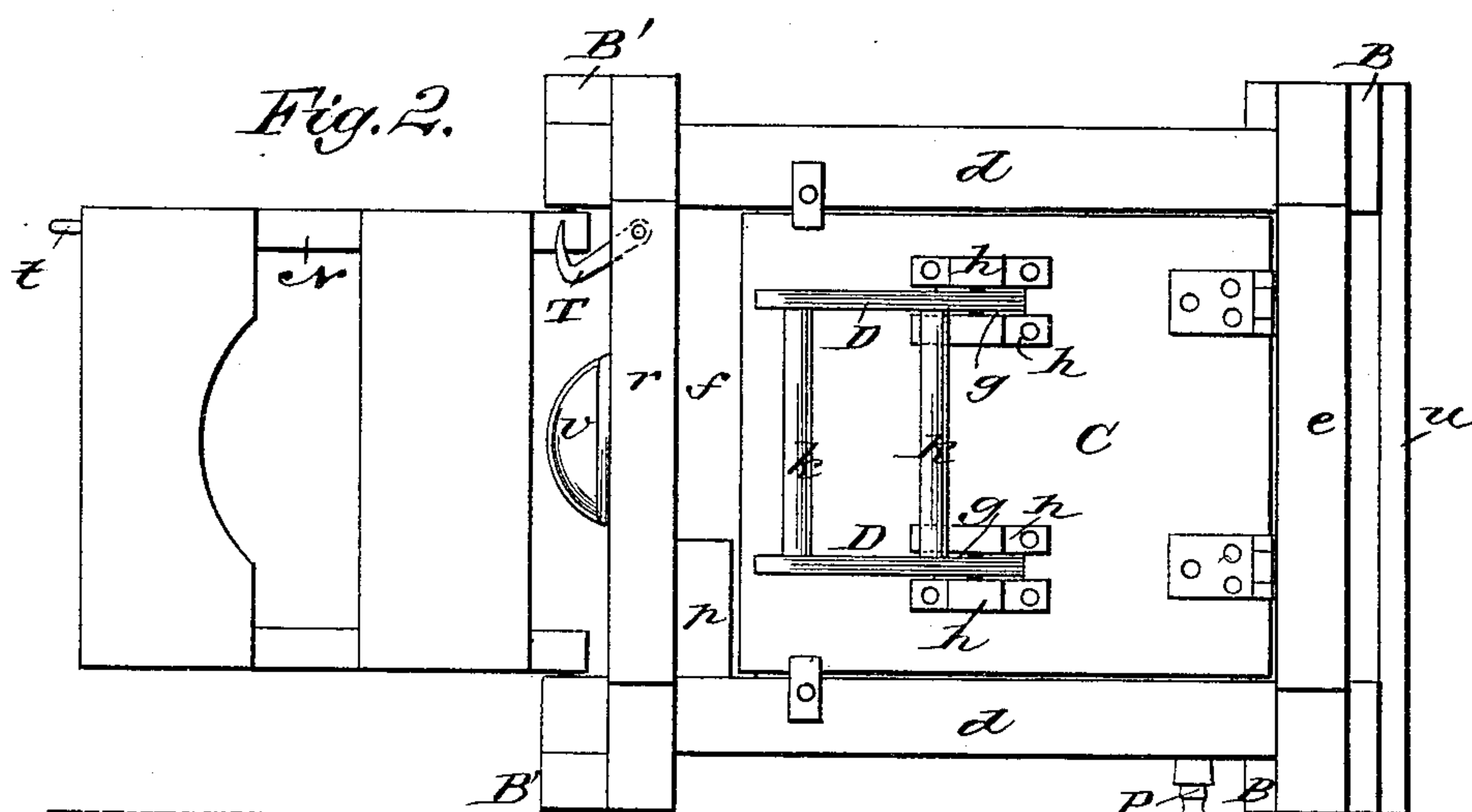
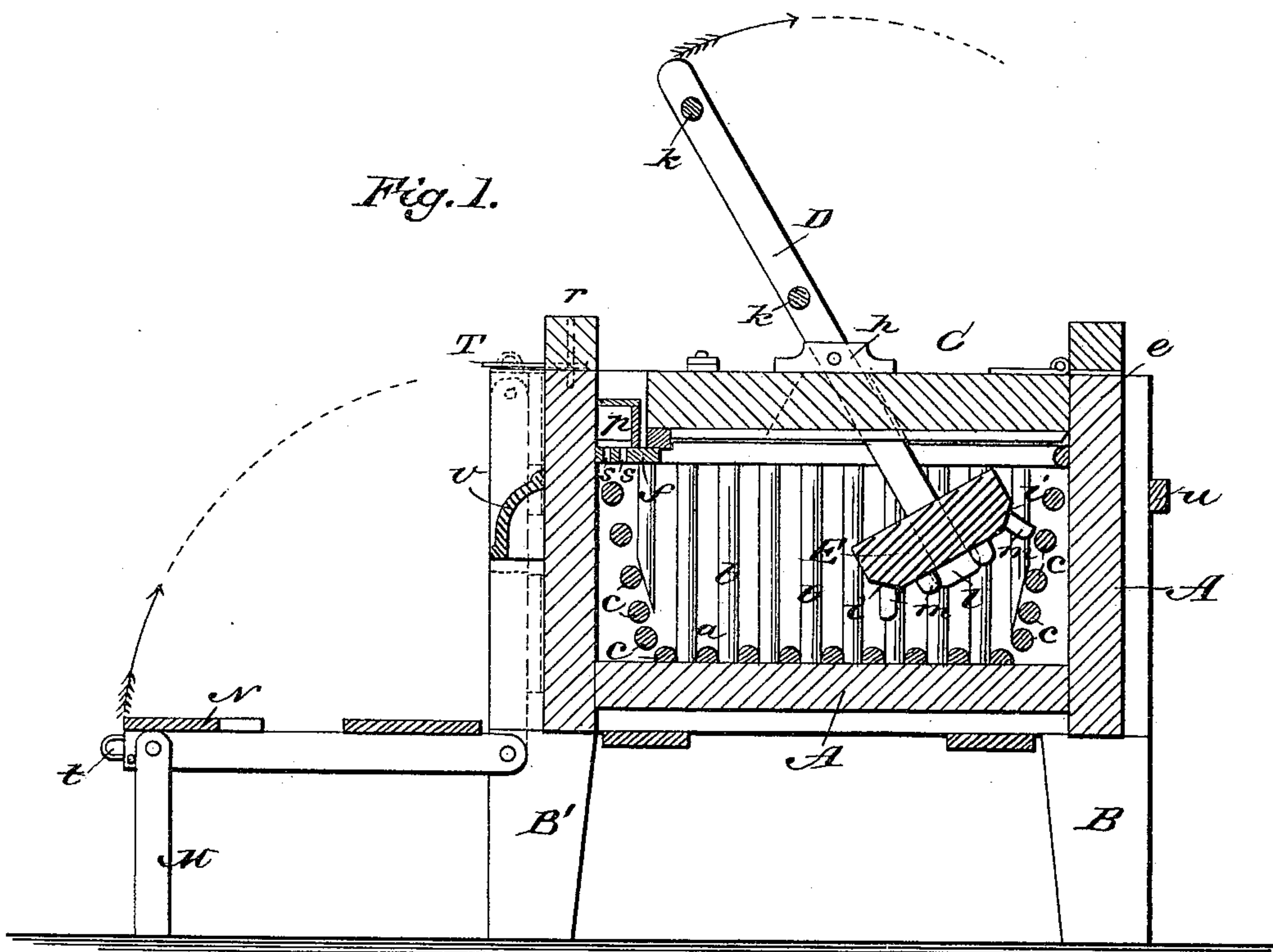


(No Model.)

H. KRAMER.
WASHING MACHINE.

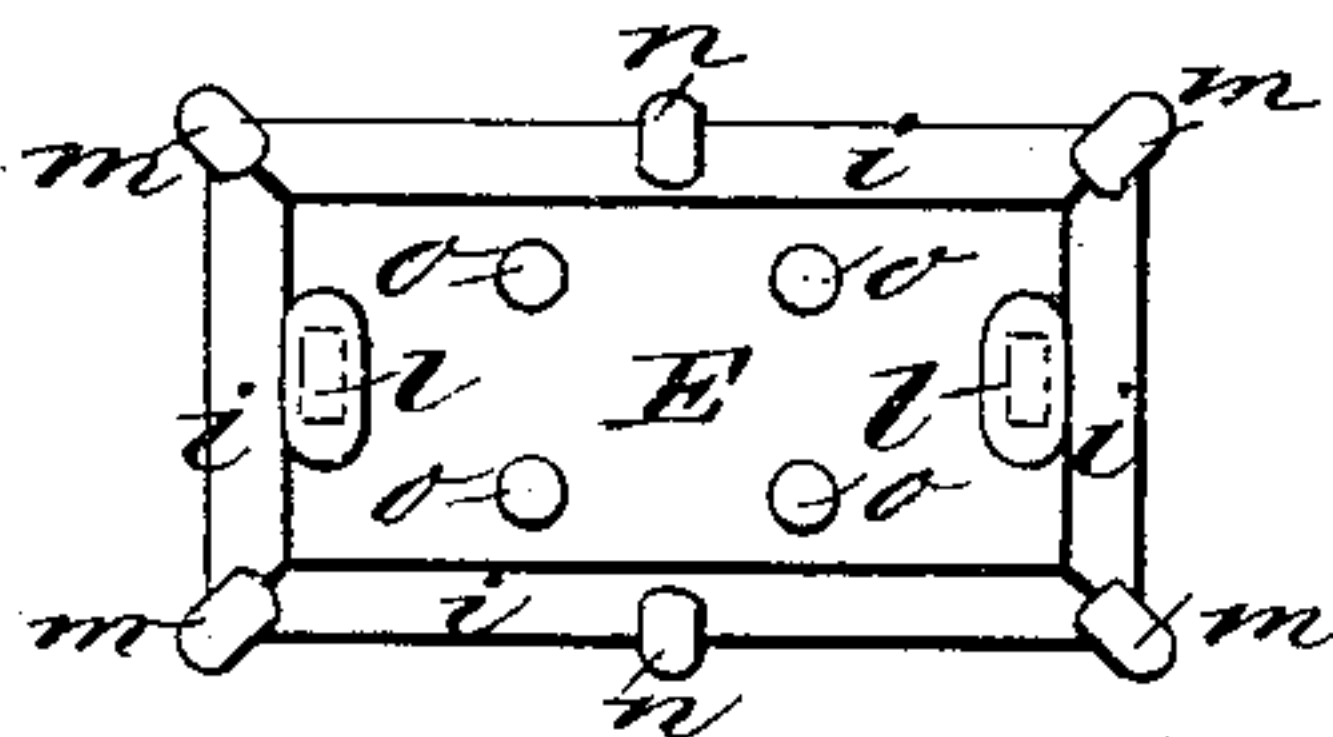
No. 350,685.

Patented Oct. 12, 1886.



WITNESSES:

P. H. Meyer
C. Bedgwick



INVENTOR:

Fig. 3. H. Kramer
BY *Munn & Co.*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

HENRY KRAMER, OF GRANT PARK, ILLINOIS.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 350,685, dated October 12, 1886.

Application filed January 9, 1886. Serial No. 188,095. (No model.)

To all whom it may concern:

Be it known that I, HENRY KRAMER, of Grant Park, in the county of Kankakee and State of Illinois, have invented a new and Improved Washing-Machine, of which the following is a full, clear, and exact description.

My invention is an improvement in the class of washing-machines which have a pivoted swinging rubber; and whose body or tank is provided with ribs that constitute the fixed rubbing-surface upon which said rubber acts.

The construction and combination of parts are as hereinafter described.

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

Figure 1 is a longitudinal vertical sectional view of my improved form of clothes-washer. Fig. 2 is plan view of the same, and Fig. 3 is a view of the under side of the reciprocating rubber or pounder.

In constructing such a machine as is illustrated in the drawings I make a water-tight tank or tub, A, upon the interior face of which I fix a number of strips, as *a*, *b*, and *c*, the strips *a* being placed upon the bottom of the tub and running across the same, the strips *b* being upon the sides and being placed in vertical lines, while the strips *c* are placed horizontally, being mounted in recesses formed in the side walls, *dd*.

The tub A is provided with legs B B' and with a cover, C, hinged to the end wall, *e*, and arranged to close down upon the cross-strip *f*, as shown best in Fig. 1. In this cover C there are two apertures, *g g*, and just above these apertures there are mounted blocks *h h*, to which the lever-arms D D of the pounder E are pivotally connected, the said lever-arms being connected and braced by cross-bars *k k*.

The pounder E consists of a block of wood, the lower edges of which are beveled off, as shown at *i*, and is secured to the lower ends of the lever, as shown at *l*. A number of pins or projections are fixed in position so as to project outward from the rubber or pounder E, said pins being preferably arranged as shown in Fig. 3, wherein pins *m m* are shown as projecting from each corner of the rubber, while a pin, *n*, projects from the center of

each side, four other pins, *o*, projecting from the extreme lower face. Upon the upper face of the cross strip *f* I arrange a soap-box, *p*, holes *s s* being formed through the strip *f*, which constitutes the bottom of the soap-box, so that all water will drain off, leaving the soap dry and hard, thus preventing all waste. A folding platform, N, is pivotally connected between the legs B' B', and is in turn provided with pivotally-connected legs M, which fold to the position indicated in dotted lines, or may be turned down to support the projecting ends of the platform, as shown in full lines in Fig. 1. A staple, *t*, is fixed in position to be engaged by a hook, T, when the platform is pulled to the position shown in dotted lines in Fig. 1.

In order that the machine may be readily lifted from place to place, I provide a strip, *u*, placed as shown, and a hand-piece, *v*; and in order that the water may be drawn off from the tub I provide a plug, P.

The operation of the apparatus is as follows: The clothes to be washed, together with a sufficient quantity of soap and water, are placed in the tub A, after which the pounder or rubber E is moved back and forth by means of the levers D, which are moved as indicated in Fig. 1. After the clothes have been sufficiently cleansed, a wringer is secured to the end wall, *r*, and a basket placed upon the platform N, so that as the clothes pass from the wringer they will drop directly into the basket.

In constructing this machine wooden plugs should be used inside of the tub, and any screws or nails used should not be allowed to penetrate to the interior of said tub.

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

1. In a washing-machine, the combination, with a tub provided with horizontal strips *a* and *c* and vertical strips *b*, and having a cover, C, of a rubber, E, carried by levers D, that are pivotally connected to said cover, substantially as described.

2. In a washing-machine, the combination, with a tub, A, provided with horizontal strips *a* and *c* and vertical strips *b*, and having a cover, C, hinged to one end thereof, of a pounder, E,

provided with pins *m*, *n*, and *o*, said pounder being carried by levers *D D*, that are connected by bars *k* and pivotally mounted in blocks carried by the said cover *C*, substantially as described.

5 3. As a new article of manufacture, a washing-machine provided with horizontal strips

a and *c* and vertical strips *b*, a cover, *C*, levers *D*, carrying pounder *E*, and a soap-box, *p*, substantially as described.

HENRY KRAMER.

Witnesses:

E. W. SINES,
J. SINES.