

A. C. HORTON.
Washing-Machine.

No. 213,989.

Patented April 8, 1879.

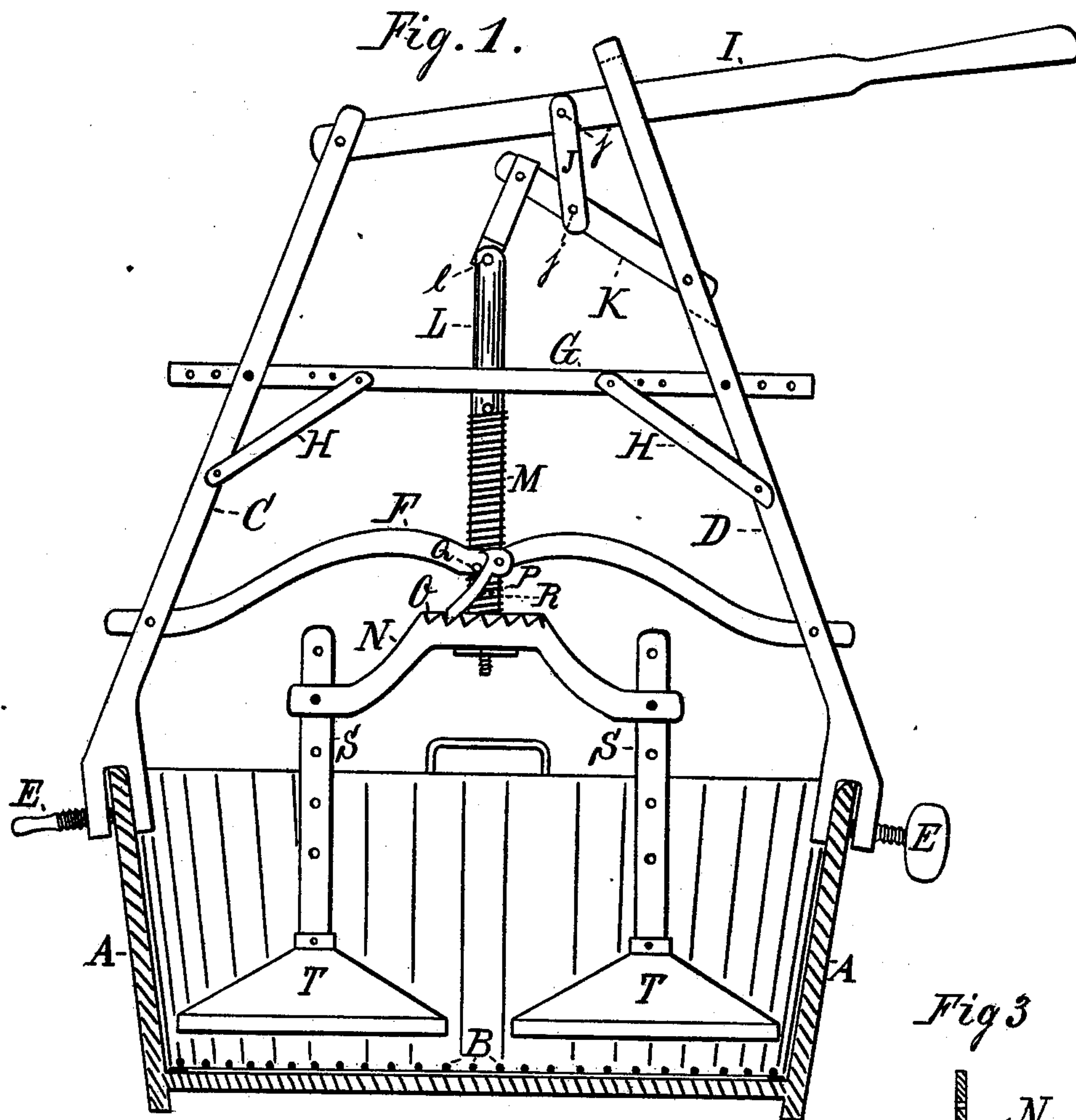
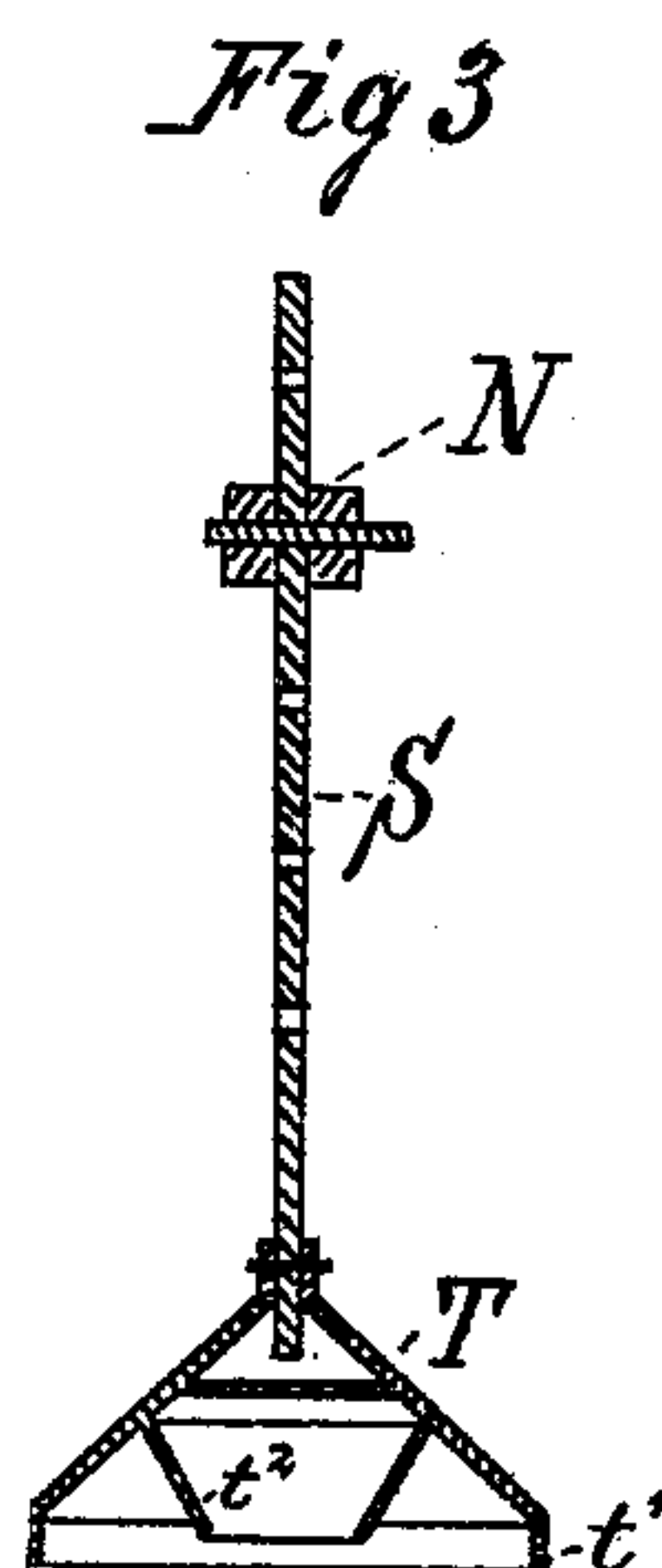
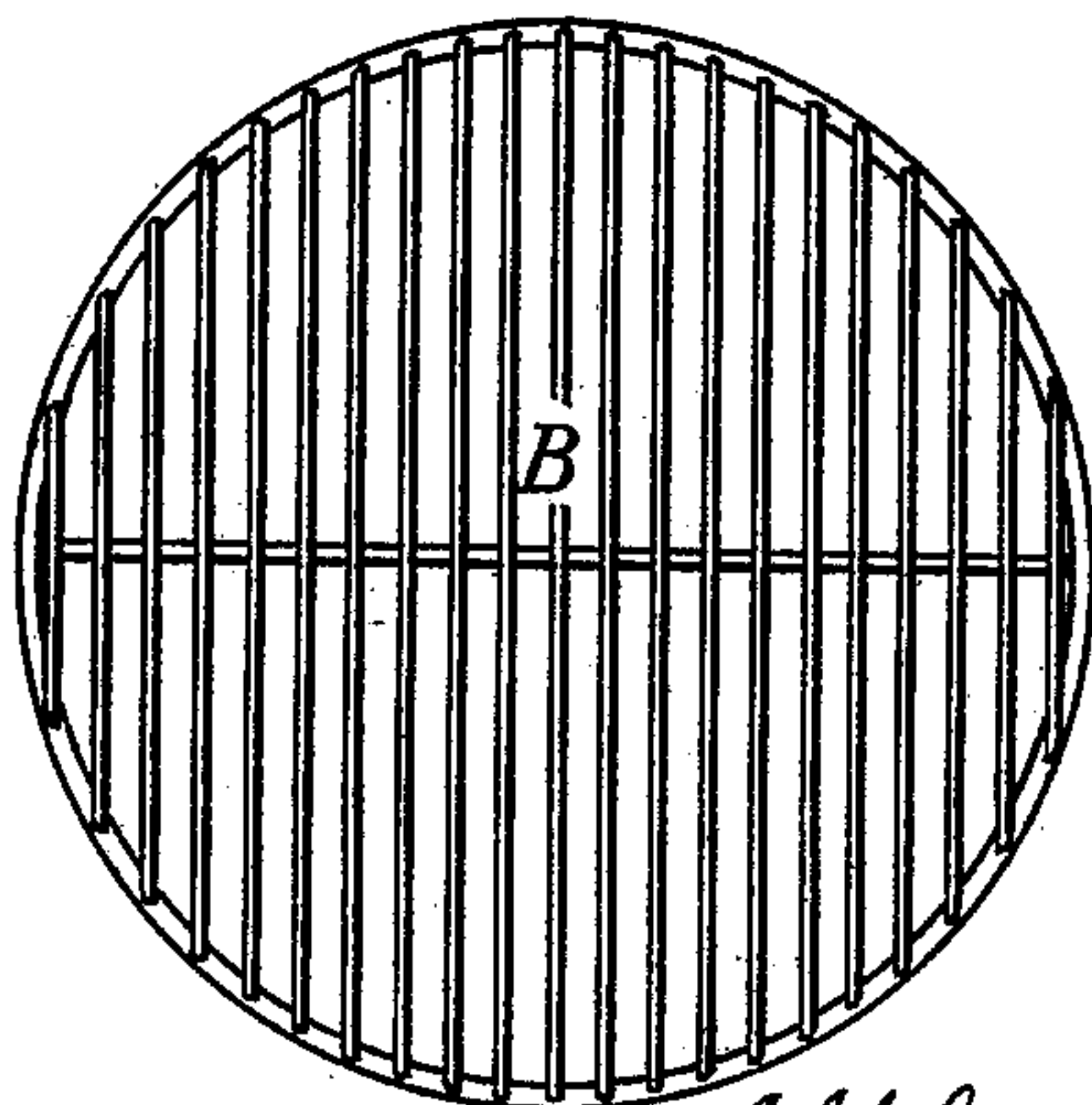
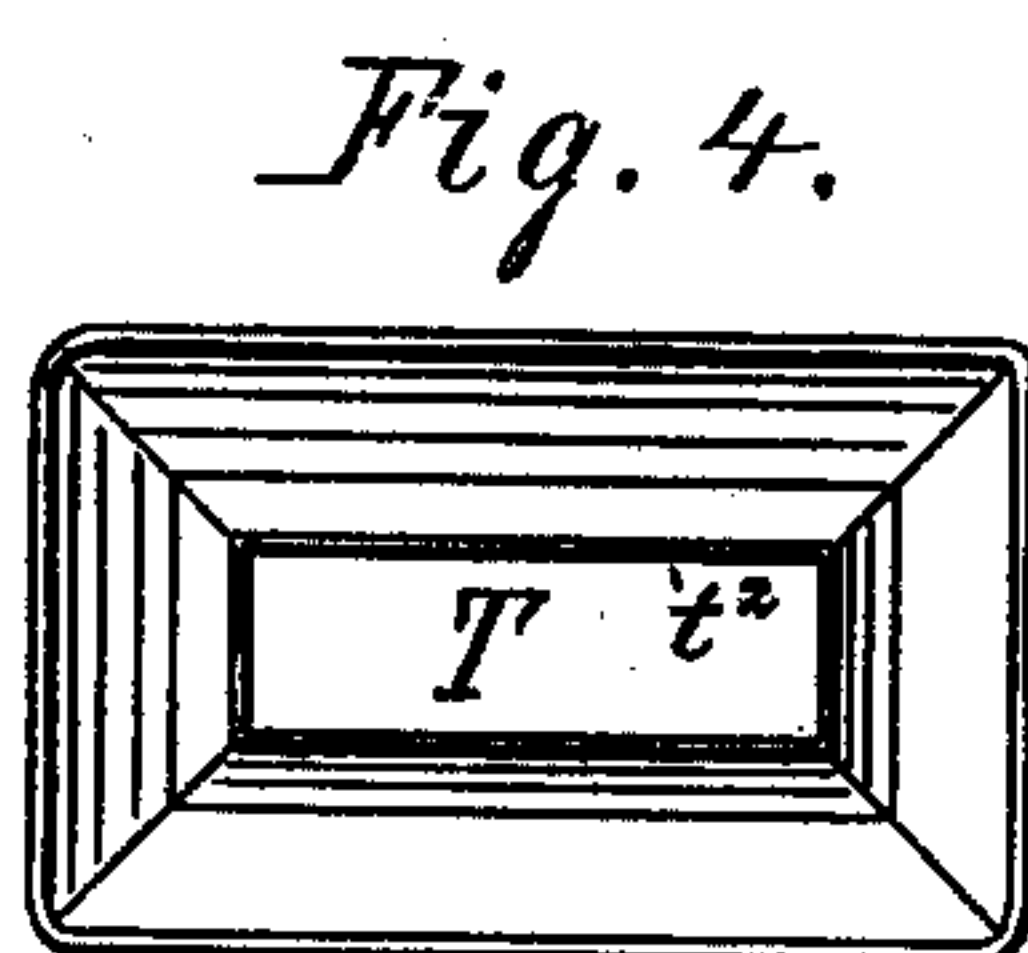


Fig. 2.



WITNESSES.

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ALPHONZO C. HORTON, OF INDIANAPOLIS, INDIANA.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **213,989**, dated April 8, 1879; application filed January 23, 1879.

To all whom it may concern:

Be it known that I, ALPHONZO C. HORTON, of the city of Indianapolis, county of Marion, and State of Indiana, have invented certain new and useful Improvements in Pounder Washing-Machines, of which the following is a specification, reference being had to the accompanying drawings, which are made part hereof, and on which similar letters of reference indicate similar parts.

Figure 1 is a side elevation of my machine, mounted on a tub, which is shown partly in section, so as to show the grating in the bottom thereof, and also to bring the pounders into view as they appear when ready for work. Fig. 2 is a plan of the grating in the bottom of the tub. Fig. 3 is a vertical section of one of the pounders, showing the inside construction thereof; and Fig. 4 is a plan view of the under side of the same, giving an outline and interior view of the shape in which I prefer to construct them.

In said drawings, the portion marked A represents the tub; B, the grating in the bottom thereof; C D, the upright standards, which are fastened to the sides of the tub, and which support the other frame-work and mechanism; E, thumb-screws, connecting the standards to the tub; F G, cross-bars, connecting the standards C D together; H, braces, to stiffen the machine, and which may or may not be employed, at the option of the user; I, a handle, by which the machine is operated; J, a connecting-rod, connecting the handle with the other mechanism; K, a lever, by which the power and length of the stroke may, by varying the points of attachment *j j*, be regulated; L, the shaft which drives the pounders; M, a spring, by which the shaft L is given its upward motion; N, a cross-head, carrying a pounder at each end; O, a ratchet, fastened to said cross-head, and surrounding the shaft L; P, a pawl, so located and arranged as to engage with said ratchet at each upward movement of the shaft, and thus impart to said cross-head a partial revolution; Q, a pin or equivalent device, by which the movements of said pawl are confined to the proper distance; R, a spring on the lower end of the shaft L, which serves the double purpose of giving elas-

ticity to the stroke of the pounders and of preventing by its friction the cross-head from revolving too far, or farther than the pawl P will carry it; S, short adjustable shafts, carrying pounders on their lower ends; and T, the pounders.

The object of my invention is to produce a washing-machine the pounders of which will automatically revolve around a vertical shaft, and thus visit every portion of the tub, subjecting all the clothes therein to equal pounding and agitation. This object is satisfactorily accomplished by the machine herein shown and described, and which operates as follows: The handle I being operated draws up through the intermediate parts the cross-head N, which carries the pounders. As the cross-head rises it comes in contact with the end of the pawl P, which engages in one of the notches of the ratchet O and pushes it around, carrying with it the cross-head and the pounders connected therewith. These pounders, being near the edges of the tub, and being propelled a short distance at each upward stroke, visit equally all portions of the tub, and thus remove the dirt from the clothes thoroughly and evenly.

The pounders T T may be made of any suitable material, though tin or other sheet metal is most usually employed. It is important, however, that they should be given a means of suction, so that the clothes will be lifted from their places as the pounder is given its upward stroke, and thus be agitated more thoroughly. I do this by making them with two flanges on the bottom, of which the outer, *t*¹, inclines outwardly from the center, and the inner, *t*², inwardly toward the center. This peculiar arrangement I find very effective for the purpose specified.

The grating B, on the bottom of the tub, is for the purpose of keeping the clothes from resting upon the solid bottom and to facilitate the flow of water through and under them.

A joint, *l'*, is preferably constructed in the shaft L, above the bearings, through which it runs, in order that the slight lateral motion given by the working of the handle I or lever K may not disturb the vertical position of said shaft.

The lever K and connecting-rod J may be

dispensed with, and the shaft L attached directly to the handle I, without destroying the character of my invention, though I prefer to use them.

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

1. The combination, with the pounder-carrying shaft L and cross-head N, having ratchet O thereon, of the dog P, bar F, and pin Q, said dog being pivoted to said bar and controlled in its movements by said pin, substantially as herein shown and specified.

2. The combination of the tub A, framework C D F G, pounder-carrying shaft L, lever K, connecting link or rod J, and handle I, substantially as shown and specified.

In witness whereof I have hereunto set my hand and seal at Indianapolis, Indiana, this 21st day of January, A. D. 1879.

ALPHONZO C. HORTON. [L. s.]

In presence of—

C. BRADFORD,

WM. J. MILLNER.