

(No Model.)

E. J. WHITLOW.

WASHING MACHINE.

No. 255,742.

Patented Mar. 28, 1882.

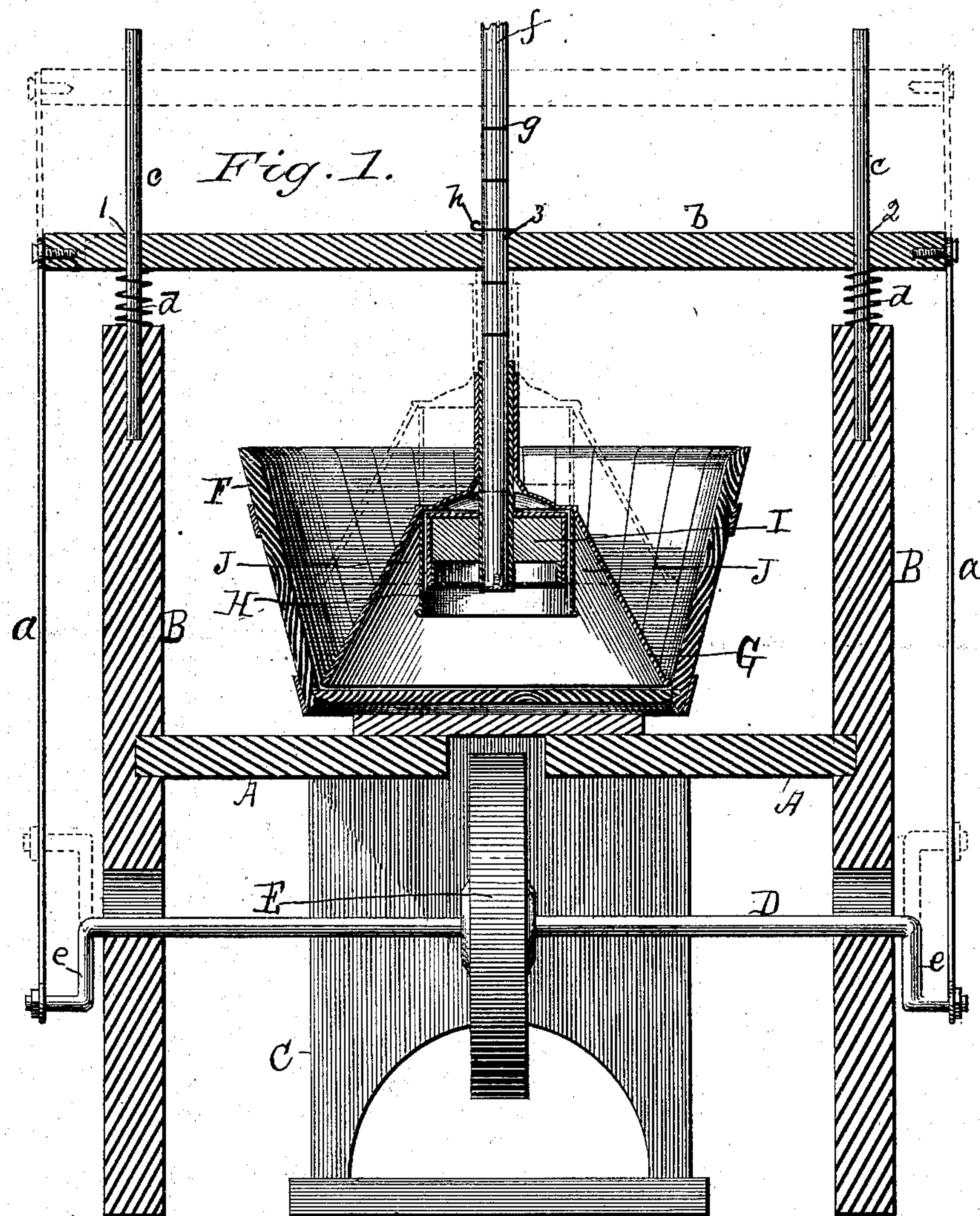
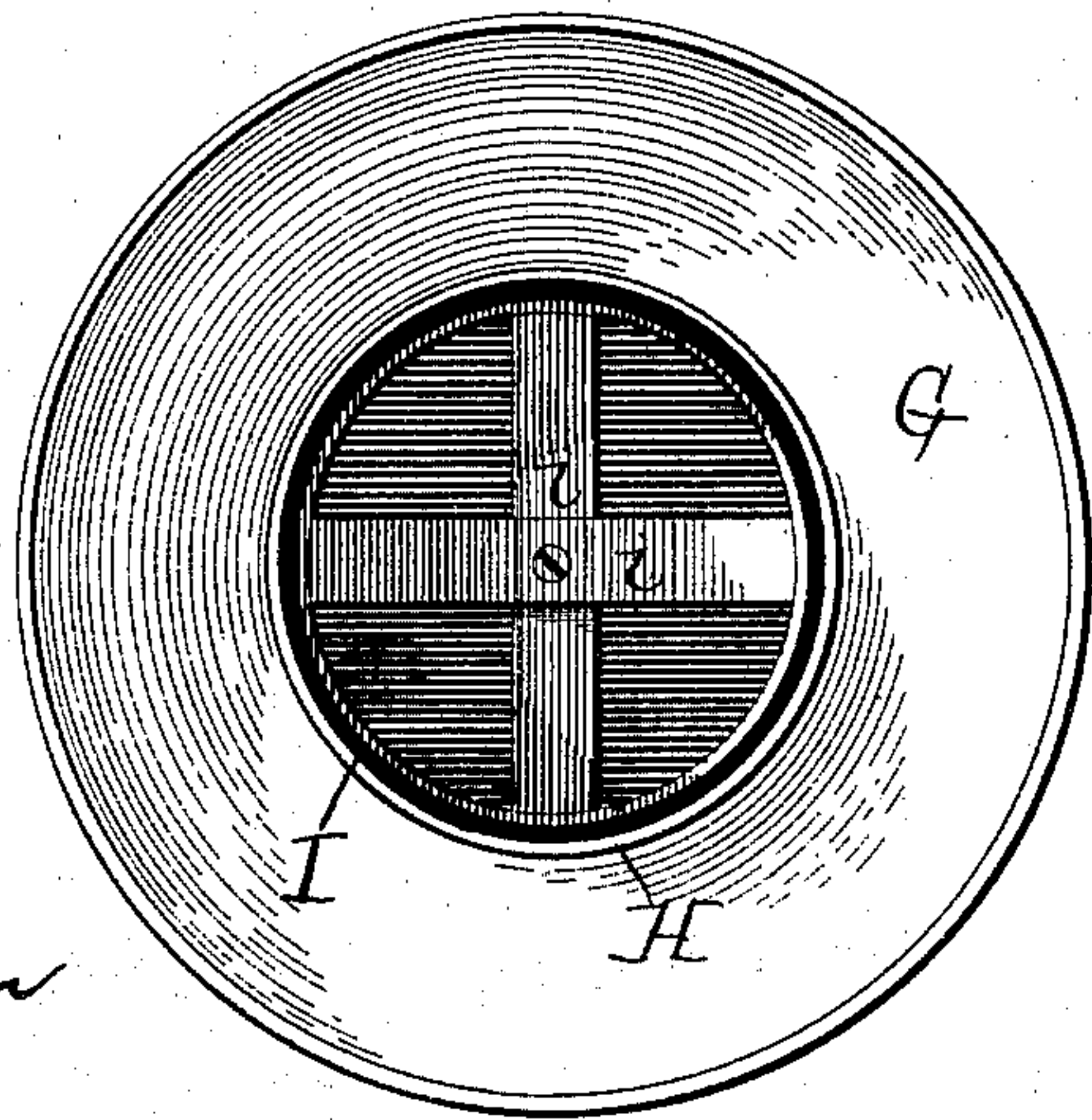


Fig. 2.



Witnesses:

A. B. Cluster
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ELIZA J. WHITLOW, OF MEXICO, MISSOURI.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 255,742, dated March 28, 1882.

Application filed September 22, 1880. (No model.)

To all whom it may concern:

Be it known that I, ELIZA J. WHITLOW, of Mexico, Missouri, have invented certain new and useful Improvements in Washing-Machines, of which the following is a specification.

My improvement relates to that class of washing-machines called "pounders," and is so constructed and arranged that a vertically-reciprocating movement is imparted to a plunger for the purpose of pounding the clothes and cleansing the same by an agitation of the water produced by the up-and-down movement of said plunger.

The improvement consists in a novel construction and arrangement of parts, which will be hereinafter more fully described, whereby the clothes are more expeditiously and thoroughly cleansed and the splashing of water outside of the tub more effectually prevented.

The nature of my invention and the manner in which the same is or may be carried into effect will be readily understood by reference to the accompanying drawings, in which—

Figure 1 represents a vertical section of a clothes-washing machine constructed in accordance with my invention. Fig. 2 is an inverted plan view of the plunger.

Washing-machines of the class commonly called "pounders" have been defective in several particulars, the essential particular being that the mechanism usually employed for producing a suction and forcing air and water through the body of clothes has been heretofore extended so far down into the interior of the cone that no space was provided between it and the bottom of the tub for the free circulation of air and water.

It is a desideratum in washing-machines of this character that the clothes should be free to move about in the tub, in order that the same may be pounded in all parts alike.

To remedy these defects and render the process of washing by machinery more thorough and uniform is the object of this invention.

In order to carry my invention into effect I employ a table or platform, A, supported at one end by frame C and at the other by standards B B, as seen in Fig. 1 of the drawings, upon which is mounted or secured the tub F, which is to receive the clothes to be washed.

In the center of shaft D, arranged beneath the tub F, which has suitable bearings in standards B B, is rigidly secured a fly-wheel, E, by means of which rotary movement is imparted to the ends of shaft D, which terminate in cranks *e e*. Motion is communicated from cranks *e e* by means of connecting-rods *a a*, which are suitably secured to the ends of cross-bar *b*, placed above the standards B B, as seen in Fig. 1 of the drawings. To overcome any tendency of the cross-bar *b* moving laterally or becoming displaced, I form therein guide-ways or openings 1 2, through which pass guide-rods *c c*, formed on or projecting from the upper ends of standards B B. Through another opening, 3, formed in the center of said cross-bar *b*, loosely passes the plunger-rod *f*, in which I form, at suitable intervals apart, small holes *g* for the reception of pin *h*, whereby the plunger-rod *f* and its accessories, hereinafter described, may be adjusted as desired. I interpose between the ends of cross-bar *b* and the upper ends of the standards springs *d d*, which encircle the guide-rods *c c*, and which tend to steady the cross-bar and to assist materially in securing an accurate up-and-down movement of the plunger.

i i are cross pieces or bars suitably secured to the interior and near the lower rim or edge of the plunger I, as seen in Fig. 2. The plunger I is secured to the rod *f* by means of a screw, as seen in Fig. 2, which passes through the center of the bars *i i*. The rod *f* passes loosely through the upper part of conical-shaped body G, whose office is to prevent the splashing of water outside of the tub, and is at liberty to move upward and downward to suit the condition of the contents of the tub.

On the interior of cone or truncated body G, near its upper end, is secured a cylindrically-shaped body, H, formed and positioned so as to receive and almost completely envelop the plunger I when in its raised position. Said cylindrical-shaped body H is unlike others heretofore in use, in that it does not extend down flush, or nearly so, with the cone or truncated body used for preventing the water splashing outside the tub when in use; but it is made to extend downward a suitable distance on the interior of the cone G, as seen in the drawings, leaving at all times a space be-

tween the tub and the said body. By thus forming and arranging said body H, as seen in the drawings, I provide ample space for the free circulation of water and air through the contents of the tub, while at the same time the clothes are free to move about unobstructedly in the tub, so that every time the plunger descends a different portion of the clothes is presented to the plunger to be pounded, whereby the process of washing is rendered more thorough and uniform. The two bodies G and H are so formed and arranged, as shown, that an annular space, J, is formed between the two.

Motion is imparted to the cross-bar *b* through the intermediary of wheel E, shaft D, and rods *a a*. The cross-bar now being moved up and down, carrying with it the plunger-rod, the plunger is caused to pound the clothes to effect the cleansing. In pressing down the pounder upon the clothes water rushes up into the cone G and also into the space J, as shown in the drawings, and thus force and action of the compressed air therein contained are brought

into use, rendering more thorough the process of washing. It will be observed, however, that in my improvement the cone G is fitted loosely upon the rod *f*, and that its own weight will always bring it in such position as to prevent the splashing of water outside the tub. It is also of sufficient weight to resist the force of the water and air with which it comes in contact.

Having described my improvement, what I claim, and desire to secure by Letters Patent, is—

In a pounder for washing-machines, the combination of the plunger-rod and plunger with the cone or truncated body G, provided on its interior with the cylindrical-shaped body H, which extends midway between its top and lower edge, as and for the purposes set forth.

June 29, 1880.

ELIZA J. WHITLOW.

Witnesses:

A. B. CLUSTER,
JOHN M. GONDON.