

(No Model.)

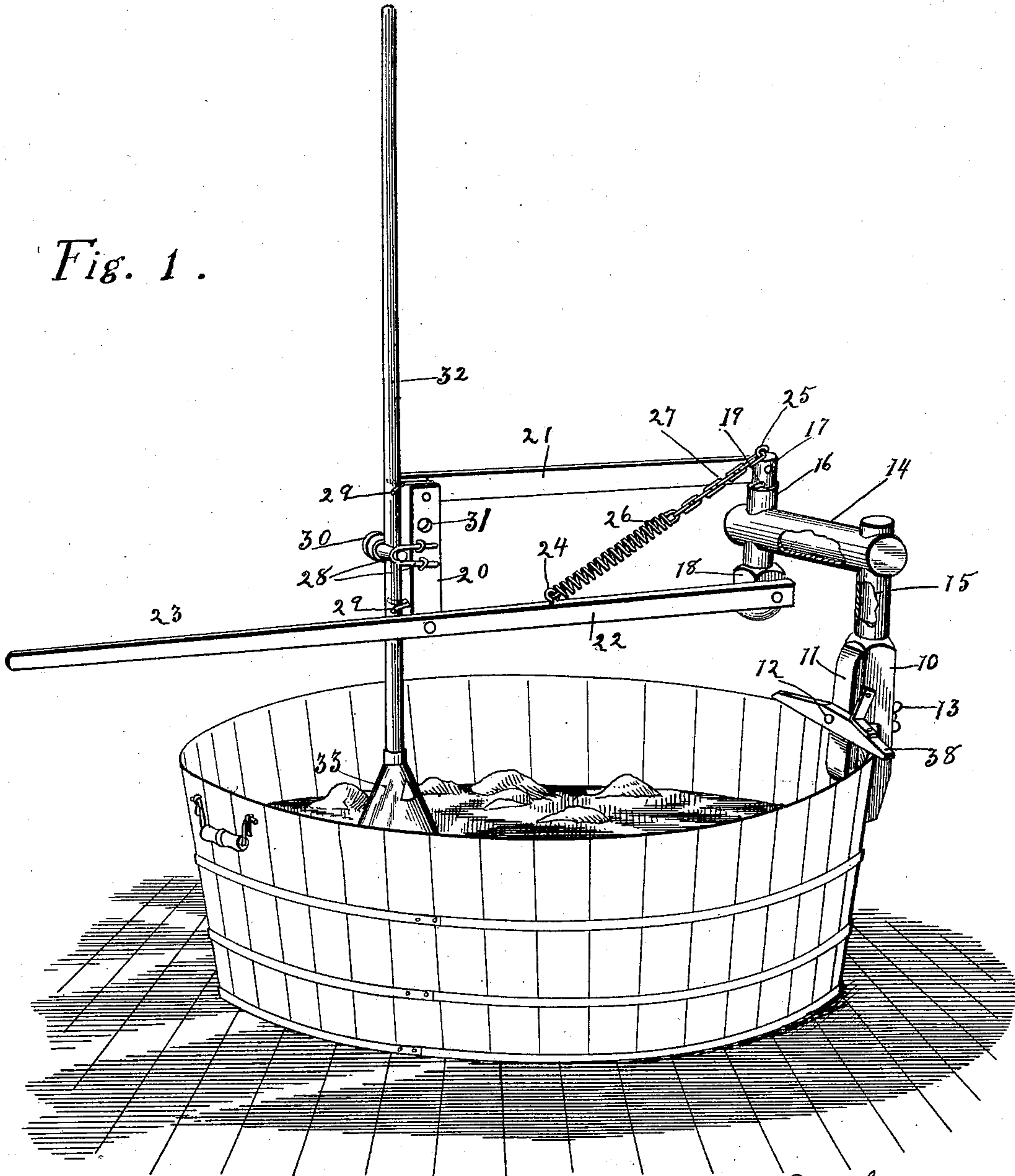
2 Sheets—Sheet 1.

L. D. & A. J. HART.
WASHING MACHINE.

No. 589,084.

Patented Aug. 31, 1897.

Fig. 1.



Witnesses:
Charles F. Mikov.
Geo. Allan.

Inventors: Loren D. Hart,
and Albert J. Hart,
By Thomas G. and J. Ralph Orrig,
Attorneys.

(No Model.)

2 Sheets—Sheet 2.

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Fig. 2.

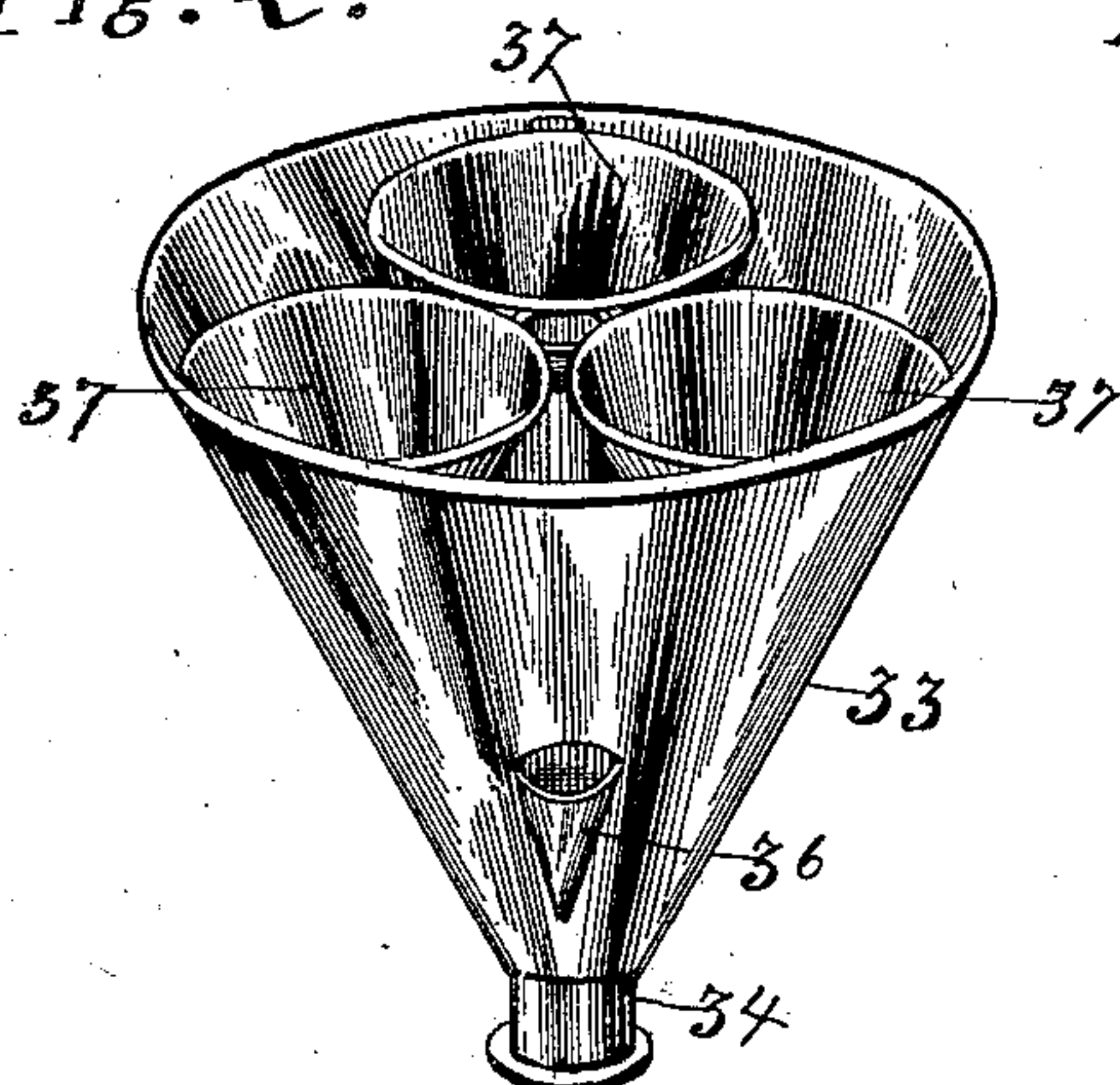


Fig. 3.

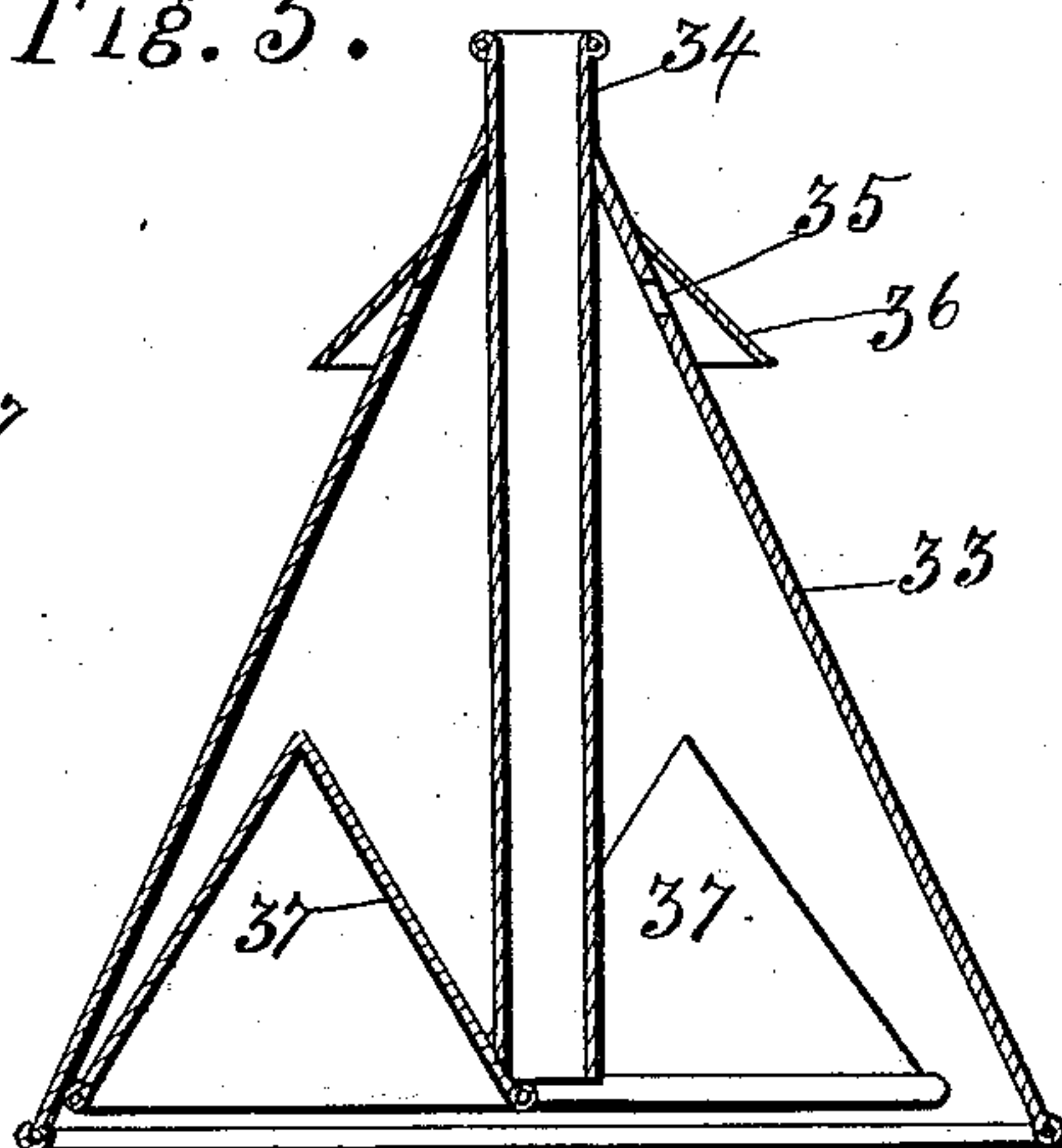
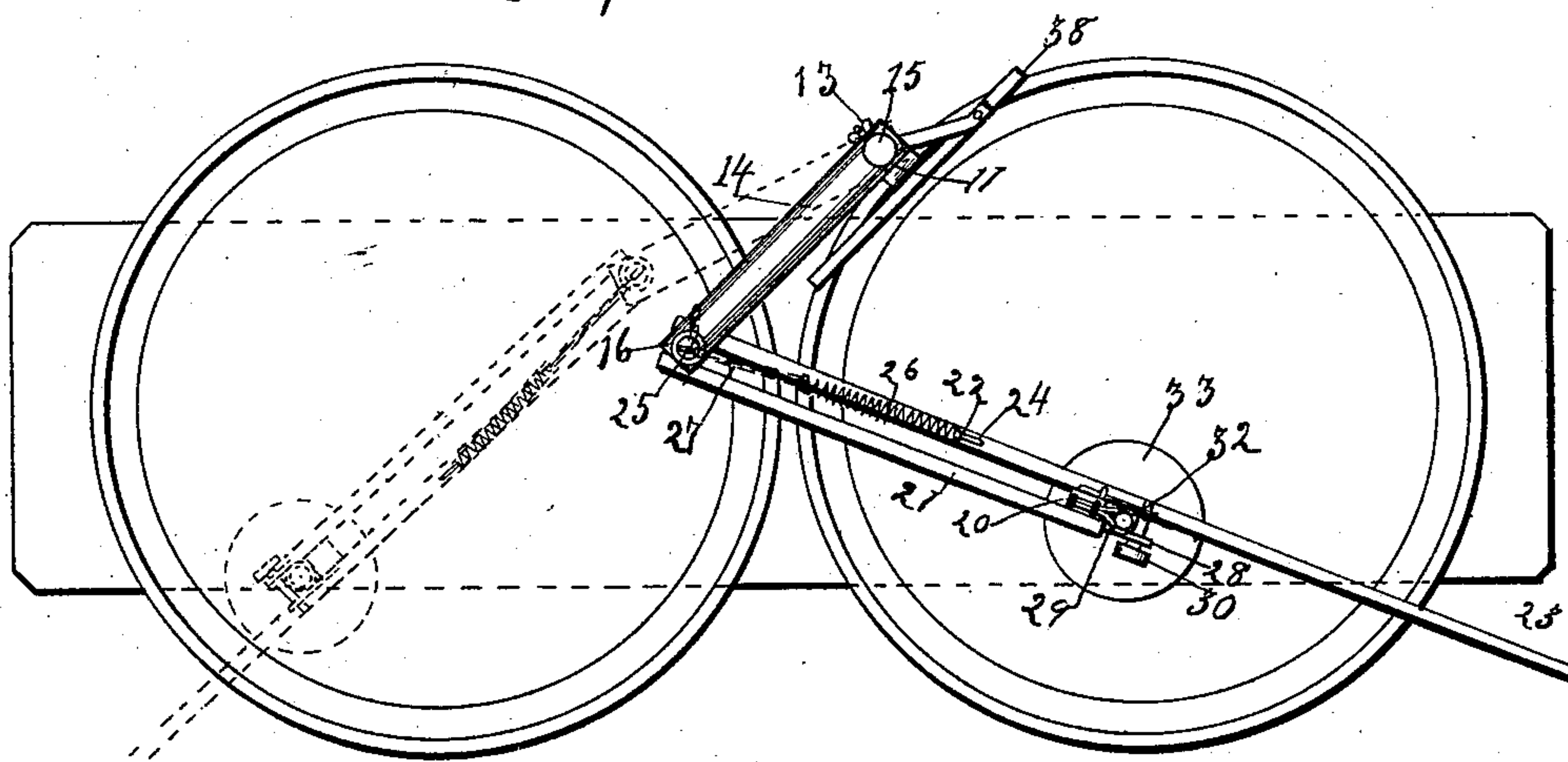


Fig. 4.



Witnesses:

Charles F. Vitcox.
Geo. Allan.

Inventors: Loren D. Hart
and Albert J. Hart,
By Thomas G. and J. Ralph Orwig,
Attorneys.

UNITED STATES PATENT OFFICE.

LOREN D. HART AND ALBERT J. HART, OF NORA SPRINGS, IOWA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 589,084, dated August 31, 1897.

Application filed April 2, 1897. Serial No. 630,396. (No model.)

To all whom it may concern:

Be it known that we, LOREN D. HART and ALBERT J. HART, citizens of the United States, residing at Nora Springs, in the county of Floyd and State of Iowa, have invented a new and useful Washing-Machine, of which the following is a specification.

The object of this invention is to provide a device of simple, durable, and inexpensive construction for the promotion of convenience and efficiency in the use of clothes-pounders, the object being more specifically to provide an operating device which may be clamped to the rim of a tub in which the clothes to be cleaned are placed, and by the manipulation of a lever conveniently arranged relative to the tub the clothes-pounder may be vertically reciprocated and at the same time be moved about the tub, and, further, the pounder may, without changing the position of its support, be placed into an adjacent tub and operated therein with the same freedom as in the tub to which the device is attached.

Our invention consists, primarily, in the construction, arrangement, and combination of the various parts of the pounder-operating mechanism, as hereinafter more fully set forth, pointed out in our claims, and illustrated in the accompanying drawings, in which—

Figure 1 shows a perspective view of the complete apparatus applied to a tub. Fig. 2 shows a perspective view of the pounder detached. Fig. 3 shows a vertical sectional view of the pounder; and Fig. 4 shows a top or plan view of a bench upon which are seated two tubs, one of which has the device applied thereto, and also showing by dotted lines the position that the pounder-operating device might assume relative to the other tub while being attached to the first tub.

The reference-numeral 10 is used to indicate a standard having its upper end rounded to fit within the tube 15 and having its lower end adapted to engage the outer surface of the tub or the like. The reference-numeral 11 indicates a flat strip attached to the inner surface of the standard 10 and so arranged that its lower end will fit against the inner surface of a tub. A bolt 12 is passed through these parts, and a winged nut 13 on the end

of the bolt provides means whereby they may be brought together so as to securely clamp the standard to a tub.

We have provided a device of simple, strong, and durable construction for connecting the lever and for operating the pounder, with the standard, in such a manner as to allow a movement of said lever in any direction in a horizontal plane relative to the standard. This device comprises a sheet-metal cylinder or tube 14, having at one end a similar tube 15, extending at right angles and designed to admit the upper end of the standard 10 and be capable of a rotatable movement thereon. At the opposite end of the cylinder or tube 14 is another tube 16, extending at right angles thereto and open at both ends. This device is all made of sheet metal and the parts firmly secured together by solder or otherwise.

The reference-numeral 17 indicates an upright having a rounded body designed to enter the tube 16 and having an angular formation 18 on its lower end. A detachable pin 19 is passed through the upper end portion of the upright to hold the same in place within the tube 16 and at the same time permit a free rotation therein.

20 indicates a second upright angular in cross-section and approximately the same length as the upright 16.

21 indicates a bar pivoted to the upper end portions of the said uprights, and 22 indicates a lever pivoted to the lower end portions of the same uprights on the opposite sides from the bar 21 and having its handle 23 extended a considerable distance beyond the upright 20.

24 indicates a hook fixed to the upper edge of the lever 22, and 25 indicates a hook fixed to the top of the upright 17.

26 indicates a contractile coil-spring fixed at one end to the hook 24 and having a chain 27 fixed to its other end, whereby it may be detachably connected with the hook 25. The tension of the chain may be adjusted by changing the position of the links of the chain relative to the hook 25. It is obvious that the resiliency of the spring will be exerted in a direction tending to elevate the handle 23 of the lever 22.

28 indicates wire loops fixed to the opposite sides of the upright 20 near its central por-

tion, and 29 are guides fixed to one side of the upright 20 and its upper and lower end portions.

30 indicates a pin designed to be passed through the loops 28, and 31 indicates an opening in the upright 20, designed to receive the pin 30 when it is not in use.

The reference - numeral 32 indicates a rounded wooden handle for the pounder. This handle is connected with the operating mechanism by being placed between the loops 28 and guides 29 to thereby limit its lateral movement, and then the pin 30 is passed through the outer end of the loops 28, with its central portion in engagement with the said handle. By this means the handle is firmly held in its position.

The pounder proper comprises an approximately cone-shaped body 33, open at its lower end and having a central tube 34 extended therethrough designed to receive the handle 32. Near the upper end portion of the cone we have provided a number of small openings 35, and also hoods 36, fixed to the exterior of the cone to cover the said openings 35, so that the water forced outwardly through the openings will be deflected downwardly. Within the cone 33 we have fixed a series of three smaller cones 37, each of which is open at its lower end and closed at its top. The outer edges of these cones 37 are connected with the inner surface of the cone 33, and the inner edges thereof are connected with the central tube 34.

In practical operation we will assume that the parts of the apparatus are detached in the same manner as is usual when packed for shipping or storage, and assume, further, that it is desired to apply the same to a tub for use. We first take the standard 10 and secure it to the edges of the tub by means of the winged nut 13. The brace 38, which is fixed to the strip 11, rests upon the top surface of the tub and holds the standard 10 in a vertical position. The part comprising the tube 14 and the tubes 15 and 16 is next placed in position by merely applying the tube 15 to the upper end of the standard 10. The frame in which the pounder is held has been previously connected with the tube 16 for the reason that these parts may be readily folded together to occupy a minimum of space. The handle 32 of the pounder is then connected to the upright 20 in the manner shown and described and the spring 26 is adjusted to the desirable degree of tension. The operator may then grasp the handle 23 and conveniently and easily apply a reciprocating motion in a vertical direction to the pounder proper. He

may freely and readily operate the pounder in any part of the tub to which the device is attached or to one or more tubs adjacent thereto. The pounder proper will advantageously rub the clothes and agitate the water to remove the dirt therefrom quickly and easily. The outlets for water at the top of the cone 33 will permit the inner cones 37 to engage the clothes very forcibly, and at the same time the hoods 36 will prevent the water from being forced beyond the tub.

Having thus described our invention, what we claim as new therein, and desire to secure by Letters Patent of the United States therefor, is--

1. The combination in a clothes-pounder-operating device, of a standard, means for detachably connecting the standard with a tub or the like, an arm pivoted to the standard and capable of moving in a horizontal plane, a frame comprising two uprights and two horizontal pieces pivoted together, and having one of said uprights pivotally mounted in the outer end of the said arm, a contractile spring adjustably attached to one of the said uprights and to one of the said horizontal pieces of the frame, and means for detachably connecting a pounder with the remaining upright of the said frame, for the purposes stated.

2. A clothes-pounder-operating device, comprising a standard having a rounded extension at its top, means for clamping the same to a tub or the like, a device comprising a sheet-metal cylinder, and two similar cylinders extended at right angles thereto at the opposite ends thereof, one being designed to receive the rounded end of the said standard, a frame composed of two uprights, one of said uprights being rounded to enter the remaining tube of the said device, a bar pivoted to the upper ends of said uprights, a lever pivoted to the lower ends of the said uprights at the opposite side thereof, a contractile spring secured to the upper edge of the lever and adjustably secured to the upper end of the rounded upright, two wire loops at the opposite sides of the remaining upright, guides at the upper and lower ends of the said upright, and a pin designed to pass through the said loops and clamp a clothes-pounder handle to the said upright, all arranged and combined substantially in the manner set forth and for the purposes stated.

LOREN D. HART.
ALBERT J. HART.

Witnesses:

L. H. PUHN,
M. JEAN WILKINSON.