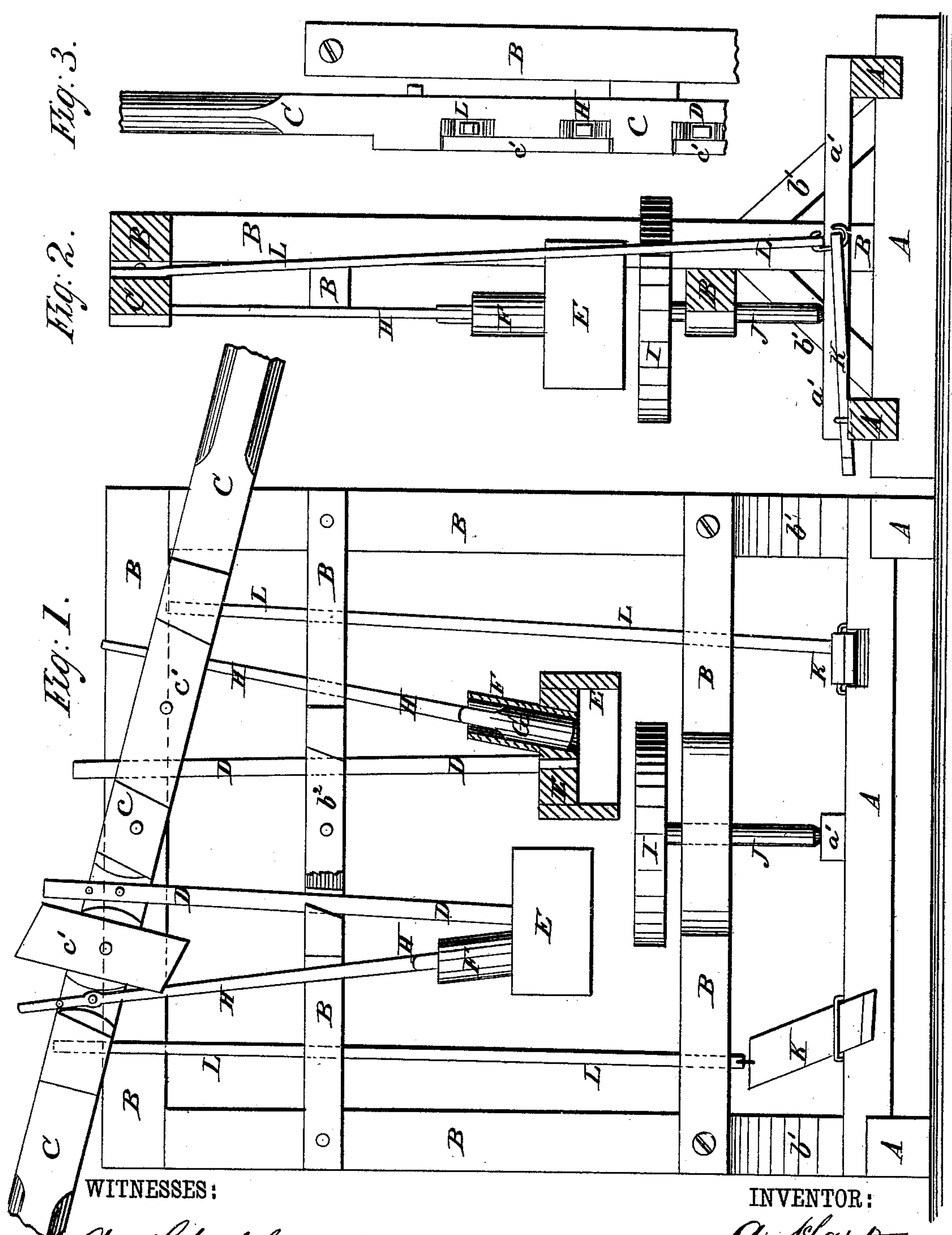


A. HART.  
Washing-Machine.

No. 214,386.

Patented April 15, 1879.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ABNER HART, OF OGDEN, ILLINOIS.

## IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **214,386**, dated April 15, 1879; application filed February 14, 1879.

*To all whom it may concern:*

Be it known that I, ABNER HART, of Ogden, in the county of Champaign and State of Illinois, have invented a new and useful Improvement in Washing-Machines, of which the following is a specification.

Figure 1 is a front view of my improved machine, parts being broken away to show the construction. Fig. 2 is a vertical cross-section of the same. Fig. 3 is a detail top view of a part of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved machine for washing clothes, which shall be simple in construction, convenient in use, and effective in operation, washing the clothes very quickly, very thoroughly, and with a comparatively small amount of labor.

The invention consists in the combination of the recessed pounders, the air-pumps, and the pivoted hand-lever with the frame-work, for operating upon clothes in a tub; in the combination of the treadles or foot-levers and the connecting-bars with the hand-lever, the pounders, the air-pumps, and the frame-work of the machine; and in the combination of the rotating table with the pounders, the air-pumps, the hand-lever, and the frame-work of the machine, as hereinafter fully described.

A is the base-frame of the machine, which is made of such a length and breadth as will give the machine a firm support.

To the middle part of the end bars of the base-frame A is secured the upright frame B, which is strengthened in position by braces  $b^1$ .

To the center of one side of the top bar of the frame B is pivoted the center of a lever, C, to which, at each side of and at equal distances from its center, are pivoted the upper ends of two bars, D.

To the lower ends of the bars D are attached the beaters or pounders E, the lower sides of which are concaved or recessed, as shown in Fig. 1.

To the pounders E are attached pump-barrels F, which incline from each other, and the lower ends of which open into the cavities of the said pounders. In the barrels F work the

pistons G, which are attached to the lower ends of the rods H.

The upper ends of the piston-rods H are pivoted to the lever C at a little distance from the upper ends of the pounder-rods D. The upper ends of the rods D H are pivoted to pins in notches in the side of the lever C, and are secured in place, detachably, by buttons  $c'$ , as shown in Fig. 1.

The rods D work in guide-notches in the middle cross-bar of the frame B, where they are secured in place by a button,  $b^2$ .

With this construction, by vibrating the lever C the pounders E will be moved up and down alternately, and at the same time the pumps F G H will be worked, to force air into and through the clothes as the pounders are pressing them down in the tub.

The tub to receive the clothes and suds is placed upon a circular table, I, attached to the upper end of the pin J, which passes through a bearing attached to the lowest cross-bar of the frame B, and its lower end works in a socket or thrust-bearing in a bar,  $a'$ , attached to the base-frame A.

By this construction, by the revolution of the table I J the different parts of the clothes in the tub will be brought beneath the pounders E, so that all the clothes will be operated upon by the said pounders E and by the air-pumps F G H.

To the front cross-bar of the base-frame A are hinged the treadles or foot-levers K, to the free ends of which are pivoted the lower ends of the connecting-bars L.

The upper ends of the connecting-bars L are pivoted to the lever C at a little distance from the piston-rods H, so that the lever C may be vibrated to operate the machine by the feet of the operator, if desired.

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

1. The combination of the recessed pounders D E, the air-pumps F G H, and the pivoted hand-lever C with the frame-work A B, for operating upon clothes in a tub, substantially as herein shown and described.

2. The combination of the treadles or foot-



levers K and the connecting-bars L with the hand-lever C, the pounders D E, the air-pumps F G H, and the frame-work A B of the machine, substantially as herein shown and described.

3. The combination of the rotating table I J with the pounders D E, the air-pumps F G

H, the hand-lever C, and the frame-work A B of the machine, substantially as herein shown and described.

ABNER HART.

Witnesses:

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ELI FENTER.