I. HOGELAND.
Washing-Machines.

No. 198,242. Patented Dec. 18, 1877

Fig. 2.

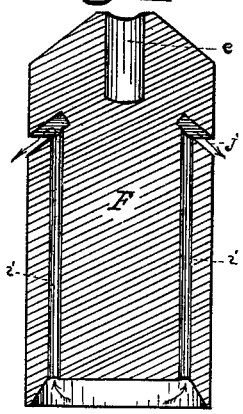


Fig. 1.

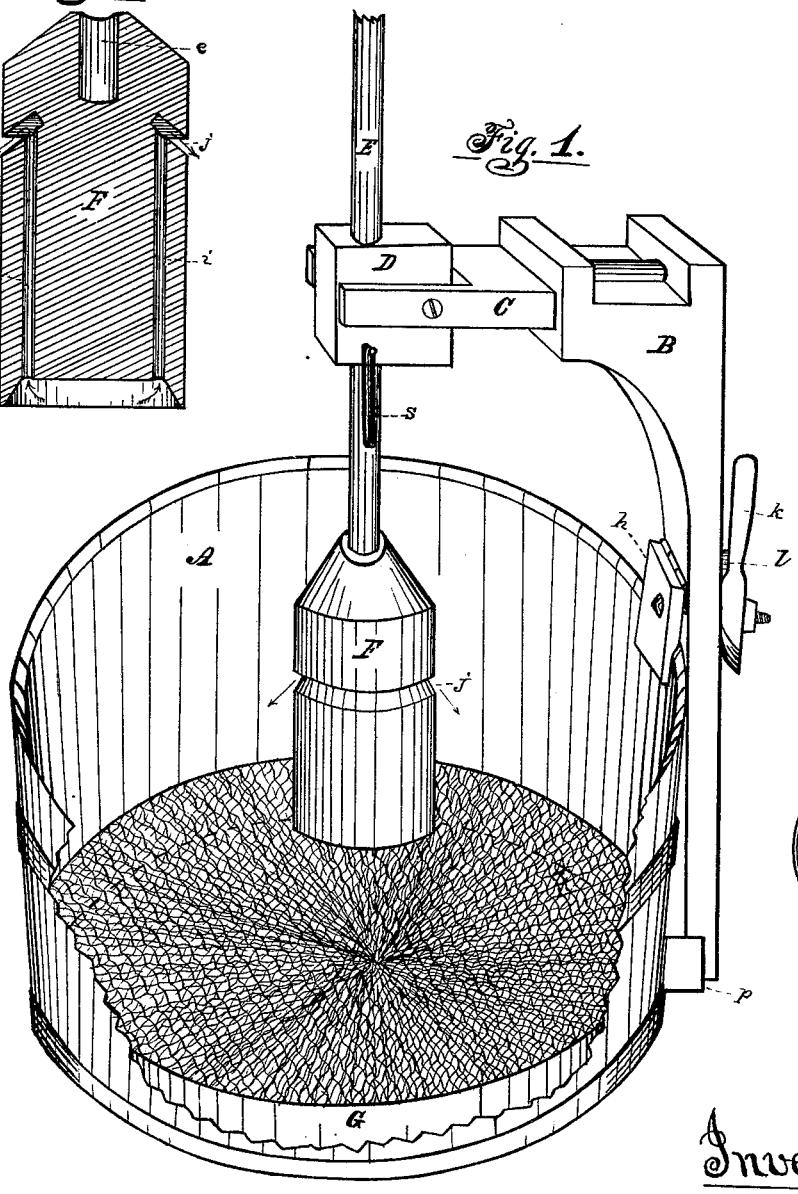
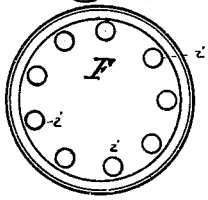


Fig. 3.



Inventor,
Israel Hogeland.

Witnesses.
Erastus F. Bussell
Latta Bussell

UNITED STATES PATENT OFFICE.

ISRAEL HOGELAND, OF INDIANAPOLIS, INDIANA, ASSIGNOR OF ONE-HALF HIS RIGHT TO JOHN R. MAROT, OF SAME PLACE.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **198,242**, dated December 18, 1877; application filed June 28, 1877.

To all whom it may concern:

Be it known that I, ISRAEL HOGELAND, of Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Improvement in Washing-Machines, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is an elevation, in perspective, of an ordinary washing-tub with my device attached thereto. Fig. 2 is a longitudinal elevated section of the plunging-beetle, and Fig. 3 is an end view of the part shown in Fig. 2.

The object of my invention is to furnish a cheap and simple device for washing clothes, which can be firmly attached to any washing-tub, barrel, or box in a moment, and can be removed with the greatest ease and facility, and that when so attached can be operated by any person for the purpose of cleansing clothes from dirt.

In the drawings, A is a common wash-tub. B is a bracket-standard, the lower end of which is clamped upon one side of the tub by means of the hinged clamp *h*, just within the top edge of the tub, operated and tightened by a circular movement of the cam-lever *k*, which rises up on the wedge *l* as it is rotated in one direction, thus clamping *h* tightly upon the tub. A reverse movement of *k* releases the clamp. A semicircular foot-piece, *p*, is attached to the lower end of B, with short spikes on its concave face to prevent its slipping when this concave is pressed against the outside of the tub.

The bracket B supports a universal joint, consisting of slotted and perforated pieces C and D. The perforation in D admits the free passage of handle E of the beetle F.

The elastic strap *s*, one end of which is attached to D and the other to E, serves as a spring with just enough power to lift the weight of the beetle F when the latter is in use, and thus relieves the operator from some labor. Any other reactional spring may serve the same purpose.

Beetle F may be of any shape and weight to suit the magnitude of the work. It is "cupped" or concaved in its lower face, as shown in Fig. 2, and from this recess longitudinal perforations *i* are made, reaching up to the shelving-groove *j*, the perforations giving vent to the hot suds at the downward stroke of the beetle, the small arrows showing the course of the hot water through these vents.

The tub A is cut away, exposing to view the false bottom G, which consists of strong canvas stretched tightly over a hoop, the latter from one to two or more inches in width, and slightly smaller in diameter than the inside of the tub at its bottom. This canvas-covered hoop, being dropped into the tub before the dirty clothes are put in, forms an elastic cushion for the clothes to rest upon, depressed slightly in the center, and when the hot water is added and the beetle F is put in operation the clothes are constantly made to change position, rolling toward that point upon which the beetle is acting, said point being depressed at each stroke of the beetle into a funnel or hopper shape. Besides the elastic resistance of the canvas bottom itself, the water beneath the canvas also resists the downward pressure, and when each stroke is made by the downward plunge of the beetle some of this water is forced through the coarse canvas and up through the clothes.

In operating my device, the universal joint C D permits the beetle F to be plunged into the mass of dirty clothes at any and all points within the walls of the tub, and the fixed point in D, through which its handle passes, compels its concave face to remain parallel to any and all parts of the canvas bottom, wherever it may strike. The advantages growing out of this arrangement and relation of parts are too manifest to need more than mention.

The recess in the lower end of F, and the thin flange at its periphery, catches and confines the hot suds within this area, and forces some of it down through the dirty clothes, while the residue escapes up the vents *i*, striking the upper face of groove *j*, which throws it down and back upon the mass of clothes. No water is thrown out of the tub.

In constructing my invention care must be exercised in providing strong and porous canvas to cover the hoop G. When this is done there is not the slightest danger of injury resulting to a tub of the slightest and most fragile build, and the operation of cleansing dirty

clothes is vastly facilitated by the upward rush of some of the hot water that lies beneath this canvas at each and every stroke of the beetle or clothes-maul F.

I am aware that cushions have been placed in tubs to break the force of the mauls and prevent injury to the clothes, and do not claim the same; but

I claim—

1. The flexible false bottom G, adapted to be supported at the circumference, and tightly stretched above the bottom of the tub, leaving an intervening water-space, and operating in conjunction with the maul F, substantially as set forth.

2. The combination of the flexible bottom, supported rigidly at the edges above the bottom of the tub, the bracket B, oscillating piece C, carrying the swinging block D, and maul F, provided with a handle sliding in the block D, as set forth.

ISRAEL HOGELAND.

Witnesses:

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OWEN WILLIAMS.