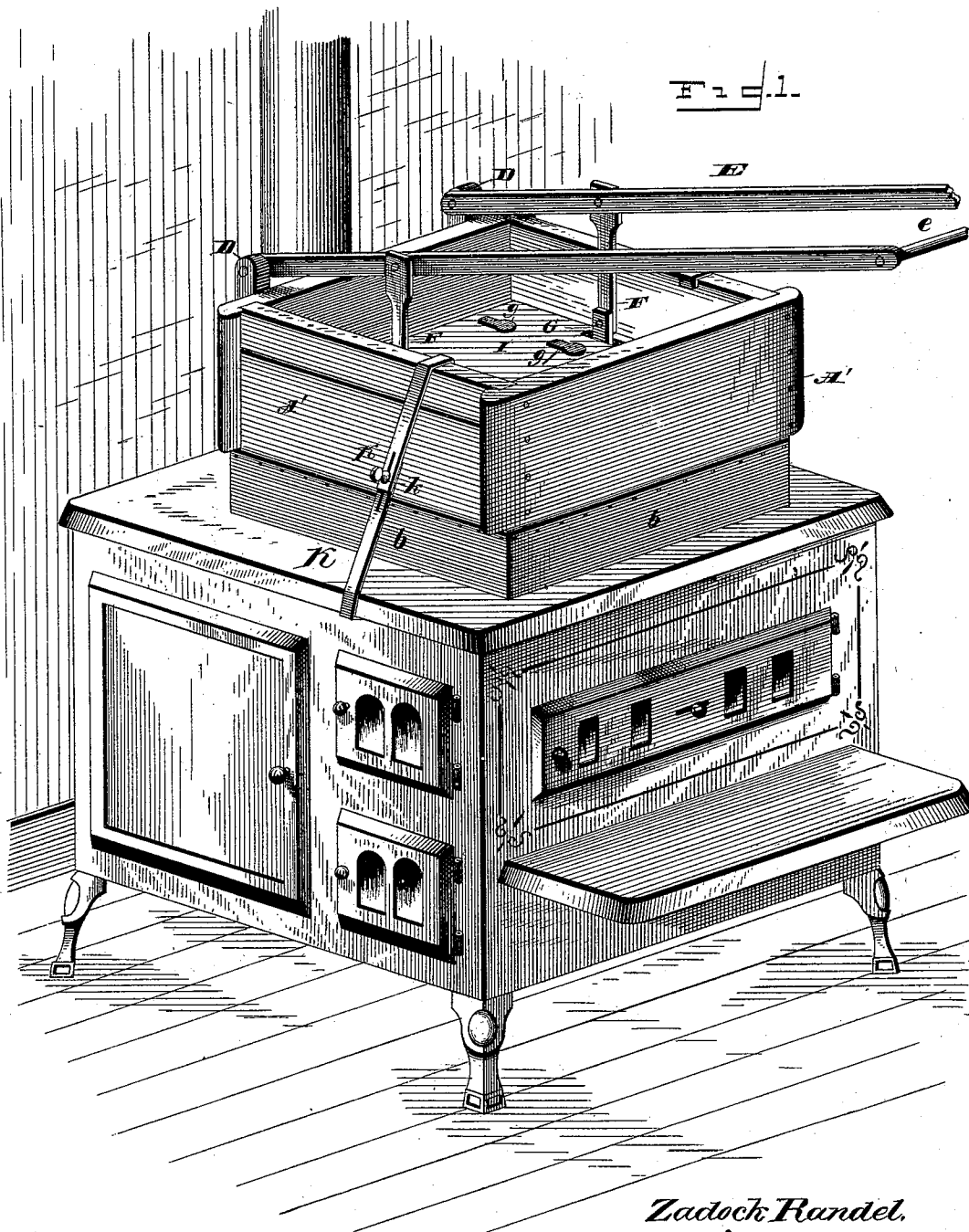


2 Sheets—Sheet 1.

No. 404,731.

Patented June 4, 1889.



WITNESSES

G. S. Elliott.
W. Johnson

INVENTOR

INVENTOR

Attorney

(No Model.)

2 Sheets—Sheet 2.

Z. RANDEL.
WASHING MACHINE.

No. 404,731.

Patented June 4, 1889.

Fig. 2.

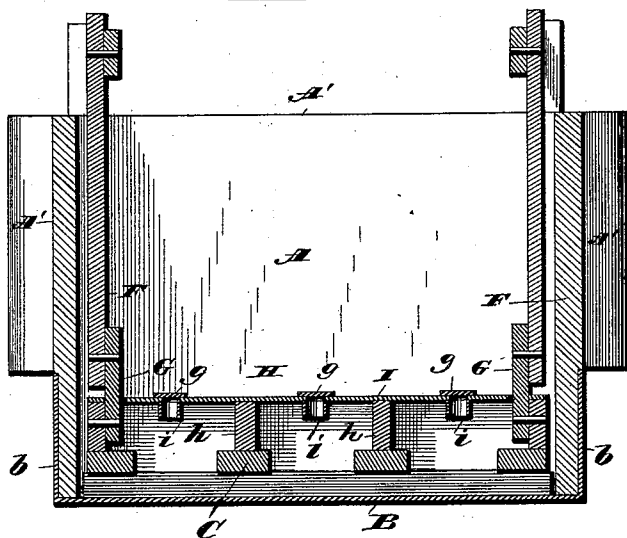
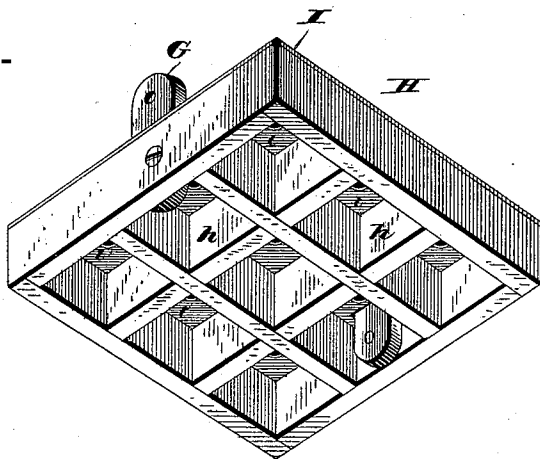


Fig. 3.



Zadock Randel.

WITNESSES

G. S. Elliott.
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Attorney

UNITED STATES PATENT OFFICE.

ZADOCK RANDEL, OF DE KALB, MISSOURI, ASSIGNOR OF TWO-THIRDS TO
HARISON B. GARDNER AND HENRY R. JONES, BOTH OF SAME PLACE.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 404,731, dated June 4, 1889.

Application filed April 14, 1887. Serial No. 234,817. (No model.)

To all whom it may concern:

Be it known that I, ZADOCK RANDEL, a citizen of the United States of America, residing at De Kalb, in the county of Buchanan and State of Missouri, have invented certain new and useful Improvements in Boiler Washing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to certain new and useful improvements in boiler washing-machines of that class which are intended and adapted to be used on top of a stove or other heating device; and my invention consists in the construction and combination of the parts, whereby the device can be attached immovably on a stove.

My invention also consists in the special construction and combination of the reciprocating plunger and means for operating the same, as will be hereinafter fully set forth, and specifically pointed out in the claim.

In the accompanying drawings, which illustrate my invention, Figure 1 is a perspective view showing my improved washing-machine applied to a stove. Fig. 2 is a vertical sectional view, and Fig. 3 is a detail perspective view, of the reciprocating plunger.

A refers to the body or boiler of the washing-machine, which consists of four side pieces A', which are rigidly secured to each other in any suitable manner. These side pieces have attached thereto a metallic bottom B, with vertical side walls b, which are securely attached to the bottom portions of the side pieces A', hereinbefore referred to. The side pieces are preferably made of wood, while the bottom is of suitable sheet metal, thus providing a rigid structure and interior side walls against which the clothes can contact without being discolored. If metal side walls were employed, the reciprocating plunger would be liable to butt against the same, and by friction and the water contained in the tub produce a substance which would dis-

color the clothes, as is well known. Therefore to obviate this objection I construct the interior portion of the side walls of wood.

Within the bottom of the receptacle A, hereinbefore referred to, is placed a rack C, upon which the clothes to be washed are placed, the bars of said rack holding the clothes away from the bottom of the tub.

D refers to short bars, which are attached to one of the sides of the tub, so as to project above the upper edge of the same, and to the projecting ends of these bars are pivoted the handle-bars E, which are connected to each other at their outer ends by cross-bar e. At a suitable point to the handle-bars E are attached connecting-rods F, the lower ends of which are pivotally attached to links G, said links being pivotally secured to the sides of the plunger at their central portions.

The plunger H consists of a rectangular frame, which is provided with cross-bars h, which form pockets, and to this frame is attached a top piece I, which is provided with perforations at the center portion of each pocket, said perforations on their under sides having downwardly-projecting tubes i. Above the perforations the plate I is provided with valves g.

K refers to metallic bars, the ends of which are bent so as to engage with the top plate of the stove and the upper edge of the tub. These bars are adjustably connected to each other by a thumb-screw or locking-bolt k, and by means of these bars, a suitable number being employed, the tub may be securely attached to the stove and prevented from moving thereon.

When it is desired to wash clothes, the device is placed upon a stove and secured thereto and water poured into the tub, and when sufficiently heated the handle-bars D are elevated to a point slightly beyond a vertical position, which will elevate the plunger. The clothes are then placed upon the rack C and the water is caused to pass through the same by reciprocating the plunger. It is only necessary to reciprocate the plunger after the clothes have been sufficiently boiled, and at each reciprocation of the plunger the position of the clothes will be changed in the boiler, as

they will be carried by the plunger in upward movement, the valves being so arranged as to cause a partial vacuum in each of the rectangular spaces of said plunger. On the
5 downward pressure of the plunger the valves will be elevated and the water will pass through the openings in the top plate and around down between the sides of the plunger and the receptacle. The cylinders or caps
10 surrounding the perforations will prevent the clothes in the boiler closing the openings beneath the valves.

I claim—

15 A pounder for washing-machines, having a top plate or sheathing with elongated slots in two opposite sides thereof, and links to which

operating-levers are adapted to be secured, projecting downward through said slots and attached to the inner surfaces of the side bars of the pounder above the lower edges of said
20 strips, whereby obstructing projections are avoided on the sides and bottom of the pounder and permit the same to cover more space and fit snugly within the tub or receptacle, substantially as described. 25

In testimony whereof I affix my signature in presence of two witnesses.

ZADOCK RANDEL.

Witnesses:

THOS. J. CRUMPACKER,
H. F. HALL.