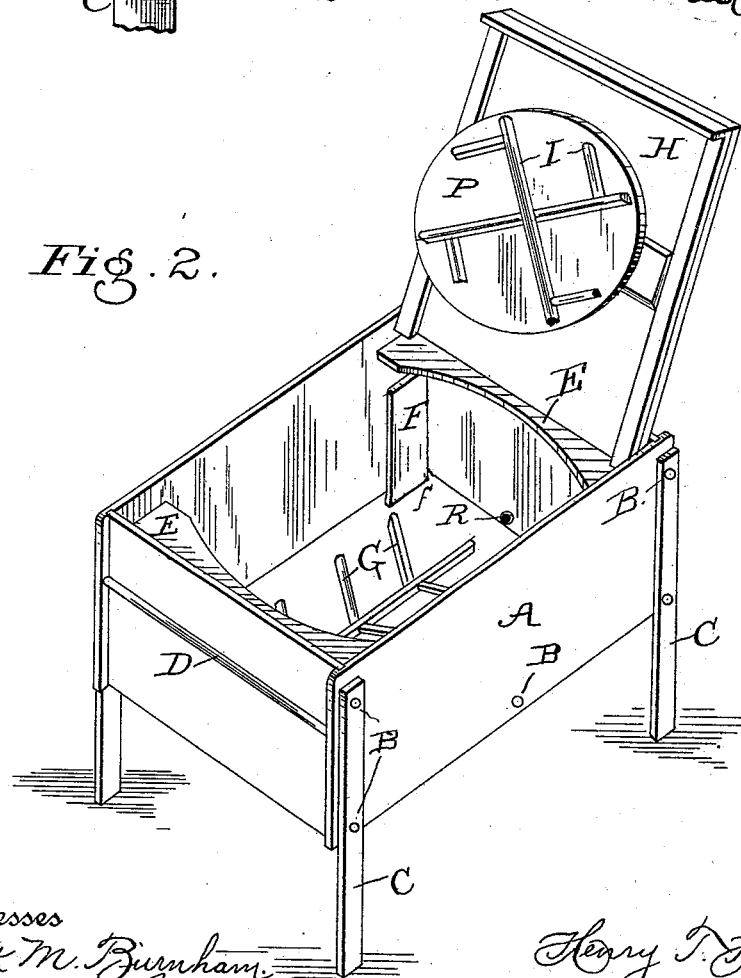
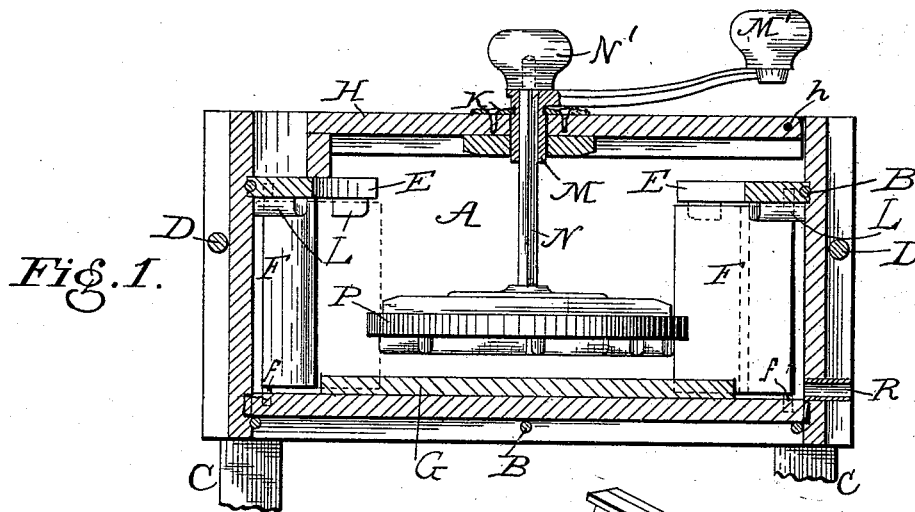


(No Model.)

H. T. HENDERSON.  
WASHING MACHINE.

No. 491,063.

Patented Jan. 31, 1893.



Witnesses  
Frank M. Burnham  
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Inventor:  
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Attorney.

# UNITED STATES PATENT OFFICE.

HENRY T. HENDERSON, OF KEOKUK, IOWA.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 491,063, dated January 31, 1893.

Application filed July 5, 1892. Serial No. 439,031. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY T. HENDERSON, a citizen of the United States, residing at Keokuk, in the county of Lee and State of Iowa, have invented a new and useful Improvement in Washing-Machines, which is made and used substantially as set forth hereinafter, and as shown in the accompanying drawings, in which—

Figure 1 is an elevation of apparatus in central section, Fig. 2 is a perspective view of the machine open.

The object of this invention is to form an improved washing machine of the class of rotary rubbers; and the invention consists in a system of parts and features for that purpose; and in some details thereof; substantially as set forth.

The machine is made with a watertight box A, which has the bottom set into a groove in the side and end boards, extended downward for that purpose. The end pieces are set into the sides in a like way. The machine has legs C, extended up the sides at the corners, outside, as binders; and bolts B, with heads and nuts extend through the hole at the top and bottom at each end, and at the bottom intermediately, to bind all solid, and so that it can be tightened to prevent leaks. The wooden rods D, serve as handles. The washer box is made quadrangular and oblong, and has cross parts E, at the ends near the top, set, also, into the sides and ends, and cut away rounding in the center. In each corner is pivoted a deflector F, by one edge some distance out from each wall, with the other edge free to turn between blocks or catches L, which hold it out from the wall and at such an angle on either side that it will deflect and guide the water inward toward the center as it is carried around by the clothing moved by the friction of the rubber face P, thereon, whichever way that may be turned, and so cause the suds to thoroughly intermix. The

top H, is hinged on pivots or otherwise at one end so as to turn back far enough to balance, and fits inside the walls, closely at the sides, onto the cross parts E, leaving a space at the other end, while entirely closing the box.

In the center of the lid H, is set a hollow shaft M, which is held by a bearing plate K set into bearings between shoulders above and below in the shaft, and attached to the lid by screws, and a crank M' to turn it by in washing. A square shaft N, is fitted in a square bearing in shaft M, so that it will turn with it but be free to move lengthwise therein so that the rubber head P having a horizontal working face borne on its lower end, may rise or fall to suit the amount of the clothing under it. The bottom of the box and the lower face of the rubber P, have rubber ribs G, I, to assist in the action on the clothes, and the upper end of shaft N is made cylindrical and has a knob N' loosely fitted thereon so that the knob does not turn with it, by which the rubber P may be borne down when desired.

A spigot at R provides for running out the water, when desired.

Various modifications may be made.

I claim:

A washing machine having a rotary rubber with a horizontal rubbing face arranged to rest on the clothing and rise and fall so as to act thereon at any position, and an angular box with flat deflectors in its corners arranged to turn freely from side to side as the turning of the rubber may change and to be held on each side by blocks or catches in the proper angles to deflect and guide the water, as it is carried around by the rubber and clothing, inward to intermix the suds continuously.

HENRY T. HENDERSON.

In presence of—

A. J. WEHRLE,  
J. G. GARRETSON.