## A. HALE.

WASHING-MACHINE.

No. 169,437. Patented Nov. 2, 1875. Fig.1.  $\mathbf{a}$ Fig. 2. Ъ a  $\boldsymbol{a}$ INVENTOR alongo Hali per J. a. Lehmann, aiso. ally. Fig. 3.

## UNITED STATES PATENT OFFICE.

ALONZO HALE, OF EUREKA, ILLINOIS.

## IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 169,437, dated November 2, 1875; application filed October 4, 1875.

To all whom it may concern:

Be it known that I, Alonzo Hale, of Eureka, Woodford county, State of Illinois, have invented a new and valuable Improvement in a Combined Boiler and Washing-Machine; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

a represents an ordinary boiler, that is provided with the cover b. Placed in this boiler is the cage c, which is provided with a short journal, d, at one end, that catches over the bearing e, while at the other end is a longer journal, g, that projects through the side of the boiler, and has the handle h secured to its outer end. These journals consist of short rods that have large heads i upon them, the smaller ends of which rods are passed outward through the heads of the cage. The heads of the rods are then secured in position by having sheets of tin soldered over them, so that they cannot be moved. A washer, j, and a nut, l, are then passed over the outer end of each rod, and clamped tightly up against the heads of the cage, and as each head is braced by the cross-strips m, the journals are made as rigid as if held by thicker stronger material. The cage itself is composed of the two heads, that are united together by the strips of

sheet metal o, that are ridged at their centers, as shown, so that as the cage is revolved with the clothes within it, the water will be carried up and drip down upon them. The ridges also form rubbing-surfaces for the clothes, which are introduced into the cage through the door r. As a slot is made in the side of the boiler for the reception of the journal g, there is always more or less of a leakage at this point. In order to prevent the water from running over the floor or stove a trap or cup, t, is formed under this bearing, into which all of the leakage runs. In the side of the boiler, near the bottom of this trap, is made a hole, 2, so that the water that runs out around the journal and is caught in this trap can run back into the boiler. The hole 2 also serves for the escape of the steam from the boiler, and thus prevents the constant boiling over. The slot over the top of the journal is closed by the slide 3.

Having thus described my invention, I

The combination of the boiler a and trap t, there being a hole, 2, in the side of the boiler to allow the water to pass back into the boiler, as described.

ALONZO HALE.

Witnesses:

G. H. MESSINGER, F. W. VOIGT.