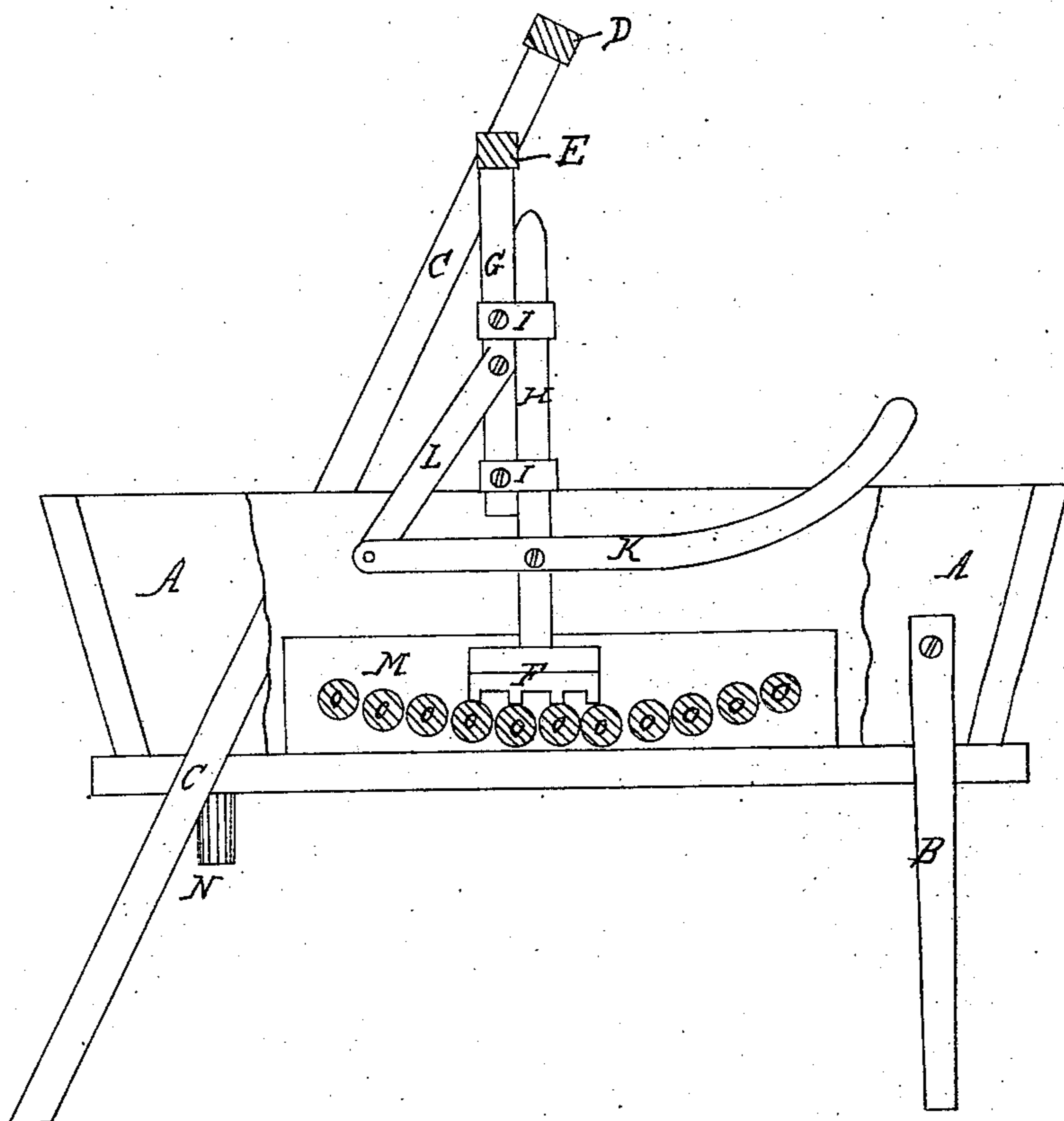


*J. Ballard.*  
*Washing-Machine.*

*N<sup>o</sup> 82584*

*Patented Sept. 29, 1868*



*Witnesses*  
*Wm. Hangleben*  
*Leopold Overb*

*Inventor*  
*James Ballard*  
*per Alexander Mason*  
*Attys*

# United States Patent Office.

JAMES BALLARD, OF ALMOND, MICHIGAN.

*Letters Patent No. 82,584, dated September 29, 1868.*

## IMPROVED WASHING-MACHINE.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, JAMES BALLARD, of Almond, in the county of Lapeer, and in the State of Michigan, have invented certain new and useful Improvements in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In the annexed drawings, forming part of this specification, A represents the suds-box, made of wood or other suitable material, and of such dimensions as may be desired, and which has two short legs, B, and two long ones, C. These latter legs C are attached to the box, in an inclined or standing position, in such a manner that their top, which is joined by a cross-piece, D, will be over the centre of the suds-box A. To and between the legs C, and near the top cross-piece D, is a bar, E, pivoted, to which bar the rubber F is attached, by means of arms made of two parts, G and H. The parts G of the arms are securely fastened to the bar or cross-piece E, and inclined inwards, so that they are closer together at bottom than at the top, and have two sockets, I I, of metal or other suitable material, in which the arms H may slide up and down. These arms H are securely fastened to the rubber F, which is made of wood, and provided with grooves on its bottom side to correspond with and rub against the small rollers O O, placed cross-ways in the suds-box A. These rollers O O are pivoted in a piece of wood fastened to each side of the box A, and are placed, in the form of an arc, in such a manner that when the rubber F is moved backward or forward without lowering or raising the arms, it will be at the same distance from the rollers O O. In one corner of the suds-box A is a hole, with a spout, N, to empty the suds out of the box. This hole is provided with a plug.

For the purpose of moving, raising, and lowering the rubber F, it is provided with a lever, K, which lever is pivoted on the outer side of the arm H. One arm of the lever K extends towards the back part of the box, and is connected with the arm G by means of a bar or rod, L. The other arm of the lever K extends far enough in front to be worked from that side where it is attached to a similar lever on the other arm H, by means of a cross-piece or handle.

When working the machine, it will take about the same amount of power to depress the rubber F in the sockets I, as it does to raise it, as the arms G and H are closer together at the bottom than at the top, as already described, thus dispensing with the use of springs for raising the rubber. The great leverage attached to the rubber F makes it a very easy working machine, as also cheap of construction, and not liable to get out of order.

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

The combination of the sliding bar H and its stationary rubber F with the swinging bar G, and levers L and K, and the tub, all constructed to operate as set forth.

In testimony that I claim the foregoing, I have hereunto set my hand, this 20th day of April, 1868.

JAMES BALLARD.

Witnesses:

JOHN RATTRAY,

C. R. FERGUSON.