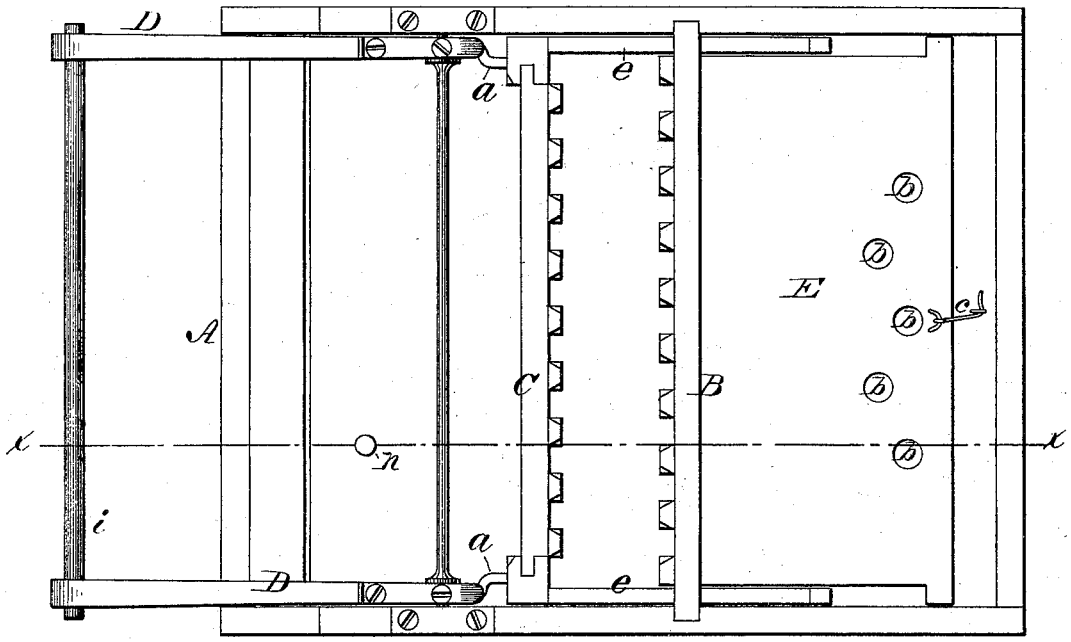
N. LONGLY.

Washing-Machine.

No. 165,938. Patented July 27, 1875.

Fig. 1



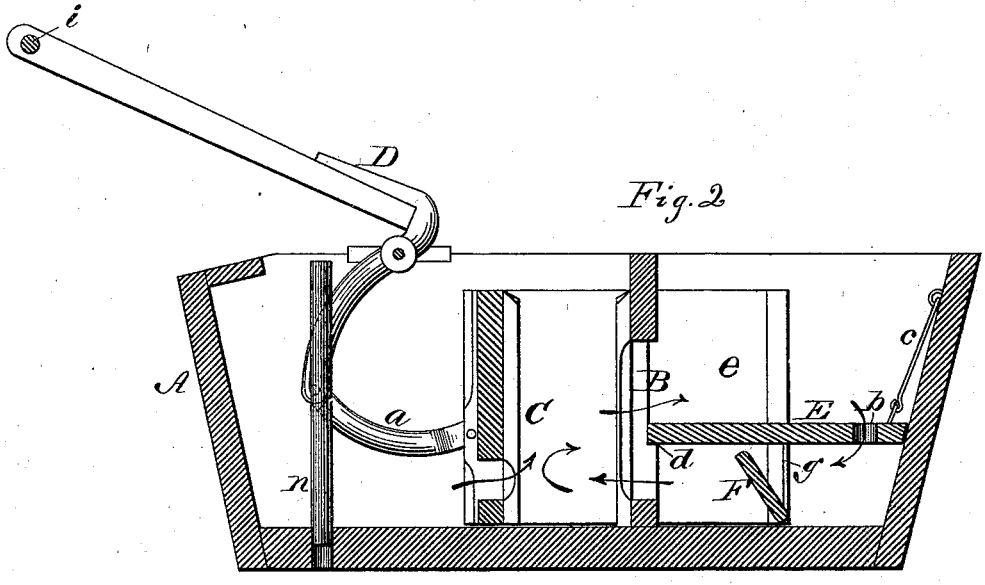


Fig. 2

Witnesses.

Donn Twitchell

Hill & Dodge.

Inventor.

N. Longly

by Dodgeson.

Attys

UNITED STATES PATENT OFFICE.

NICHOLAS LONGLY, OF SUE CITY, MISSOURI.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **165,938**, dated July 27, 1875; application filed May 3, 1875.

To all whom it may concern:

Be it known that I, NICHOLAS LONGLY, of Sue City, in the county of Macon and State of Missouri, have invented certain Improvements in Clothes-Washing Machines, of which the following is a specification:

My invention consists in a body containing a sliding head or bunter acting against a transverse grating, a perforated shelf in rear of the grating, and a valve or paddle moved back and forth under the shelf by means of the sliding head.

Figure 1 represents a top-plan view of my machine. Fig. 2 represents a longitudinal vertical section of the same.

A represents a rectangular wooden body or tub, divided across its middle by a grating, B, composed of upright wooden slats. C represents a sliding head or bunter, arranged parallel with the grating, and provided at its ends with arms *e*, which extend through the grating, as shown, for the purposes of guiding the head and carrying a valve or paddle hereinafter described. D D represent two elbow-levers, pivoted to the inner sides of the body at its front end, their lower ends being connected by links *a* to the sliding head C, while their upper ends are united by a cross-bar or handle, *i*, by means of which the levers may be operated so as to slide the head back and forth, to and from the grating B. E represents a horizontal perforated shelf or division-board, arranged a few inches above the bottom of the body, and fitting closely therein from the grating B to the rear end, as shown. This shelf or board is sustained at one edge by a shoulder, *d*, on the grating, and at the other edge by a hook, *c*, engaging with a staple on the body. F represents a valve or paddle, extending across the body below the shelf or board E, and pivoted at its ends to the arms *e* of the sliding head C, as shown, the arrangement being such that the valve is carried back and forth under the shelf by the movement of the head. The valve is hung in such a manner that as it is drawn forward toward the grating it assumes an upright position, and drives the water before it from under the shelf, through the grating B, at the same time drawing water down through the perforated shelf behind it; while on its return or backward movement it turns down and passes through the water without driving the water up through the shelf. It will thus be seen that the action of the valve produces a constant circulation of water down through the shelf, and then forward through the grating and back over the shelf again, as indicated by the arrows in Fig. 2.

In operating the machine the clothes are placed between the sliding head and the grating, a proper amount of water introduced, and the levers thrown up and down, so as to move the head and valve back and forth—the head to pound and squeeze the articles against the grating, while the valve, driving a strong current through the foot of the grating under the articles, causes them to turn over and over, and to move about in such manner that they are all acted upon equally and advantageously, while at the same time the water is driven through them and caused to wash out the dirt as fast as it is dissolved and set free.

By placing the articles on the shelf, either before or after having been acted upon by the head, the water is caused to pass through them very rapidly, so as to soften and remove the dirt, &c. In order to render the action of the machine easier, and to prevent the splashing of the water, as well as for other reasons, the sliding head is provided with openings, through which the water can pass back and forth; and in order to permit the escape of the water when desired, the body is provided with an outlet-hole, closed by a plug, *n*.

A convenient manner of operating the machine will be to first place the entire mass of clothes in the front of the body, behind the head, and then insert them, as fast as required, between the head and grating to be acted upon, and then, finally, to place them on the shelf behind the grating to be rinsed.

I am aware that it is not new to combine a sliding head or bunter with two valves arranged to force water against the clothes while they are being compressed; but such combination has no bearing on my machine, which is constructed to force water under the clothes and turn them over while they are free from pressure.

What I claim as my invention is—

1. In a washing-machine, the combination of a sliding head, a valve operated thereby, a grating to support the clothes against the impact of the head, and a perforated shelf or guide-board, arranged in the manner described, to force a current of water under the clothes on the back stroke of the plunger, and thereby turn them over, substantially as shown and described.

2. The combination of the body A, fixed grating B, sliding head C, perforated shelf E, arrrnged behind the grating, and the valve F, operated by the head in such manner as to drive a current of water forward through the foot of the grating as the head recedes therefrom.

NICHOLAS LONGLY.

Witnesses:
I. H. KELLOGG,
JOHN FISHER.