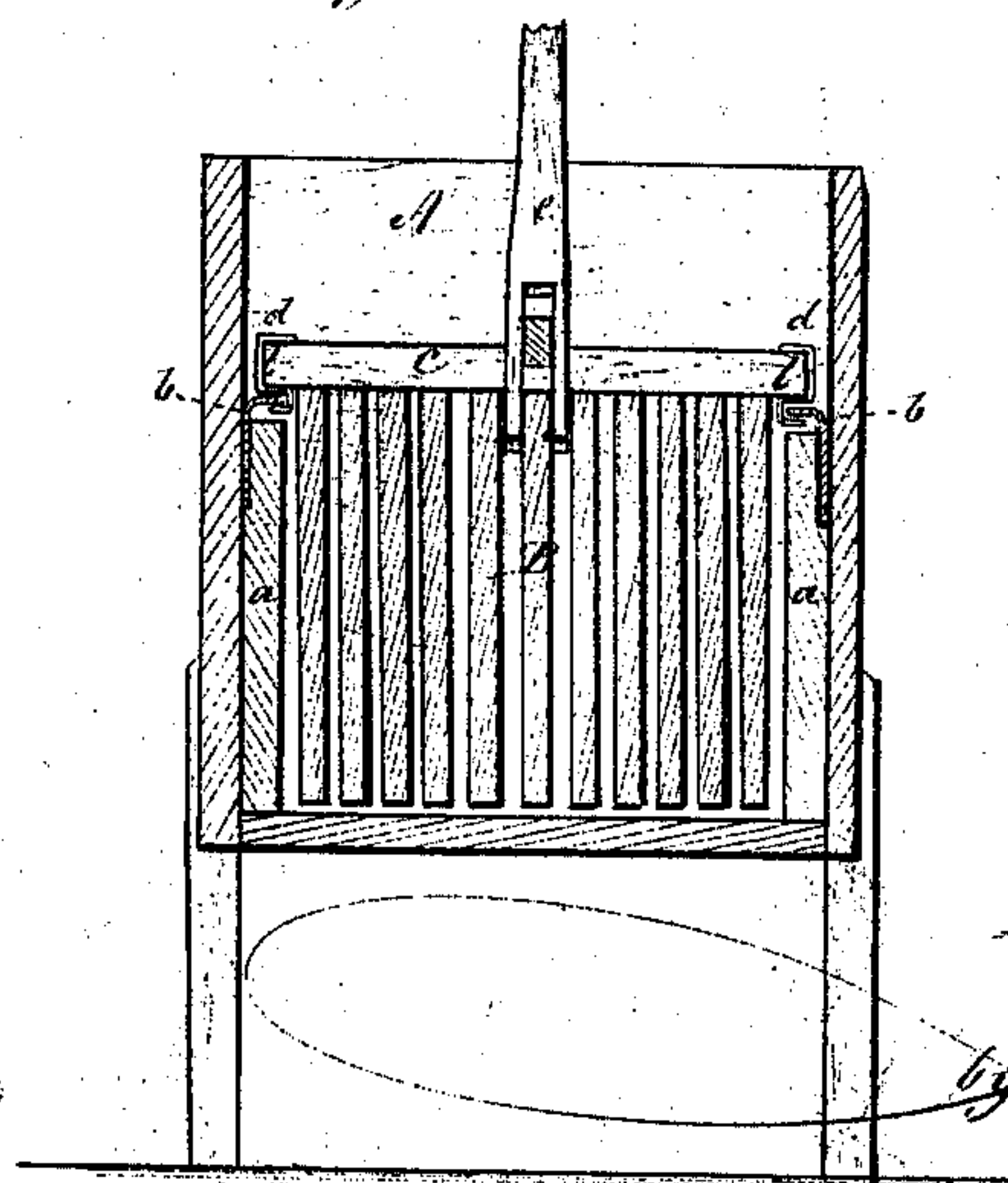
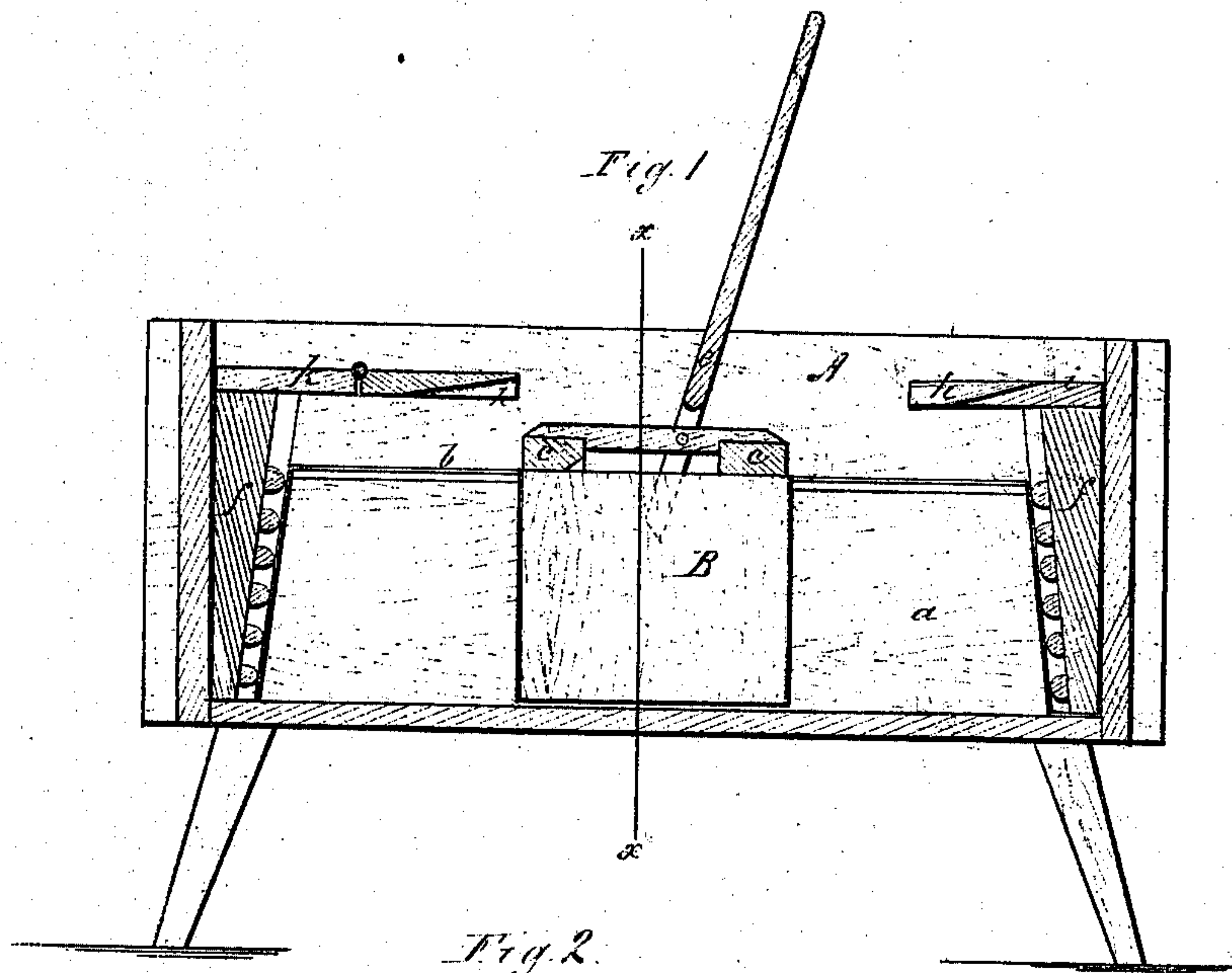


*H. J. Moreland,*

*Washing Machine.*

*No. 105,831.*

*Patented July 26, 1870.*



*Witnesses*  
*H. J. Lutz*  
*Chas. A. Pettit*

*H. J. Moreland Inventor.*

*by M. W. H.*

*his Attorney.*



# United States Patent Office.

HENRY J. MORELAND, OF WHITEHALL, ILLINOIS.

Letters Patent No. 105,831, dated July 26, 1870.

## 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, HENRY J. MORELAND, of Whitehall, in the county of Green and State of Illinois, have invented a new and useful Improvement in Washing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a longitudinal, and

Figure 2 is a transverse vertical section.

This invention consists in the combination of wash-boards *f* and guide-ways, arranged lengthwise of the inner side of the suds-box, with a head provided with four grooved horizontal projections, one at each upper corner, the grooves in which projections fit over said guide-ways, enabling the head to slide to and fro upon the same, when the guide-ways are made shorter than the box, and so placed as to leave spaces of equal extent between their ends and those of the box, and when the grooved projections of the sliding head are made so narrow that the two on one side may be slipped off the guide-ways into the space at one end of the same, and then the two on the other side may be slipped off into the space at the other end of the guide-ways, and the sliding head be thus disengaged, so that it may be removed from the box, the same process, reversed, being employed to place the sliding head again on the guide-ways.

In the drawing—

A is the suds-box.

*a a*, boards of a width less than the height of the sides of the box, and attached to the sides lengthwise of the same.

*b b*, metal strips secured between the sides of the box and the boards *a*, and bent downward over the upper edges of the latter so as to form guide-ways.

B is the sliding head, which is made of wooden plates placed parallel, at intervals sufficient to allow water to pass through between them.

*c c* are parallel bars to which the plates of the sliding head are all attached beneath, which bars, projecting beyond the outermost plates, at each side of the sliding head, form the four corner projections *l l*, mentioned above.

*d* are metal plates, which are secured to the ends of

the bars *c*, and are bent inward under the bars, and then outward, so as to form grooves beneath the bars, which grooves fit over the guide-ways *b*.

*e* is the handle by which the sliding head is moved to and fro upon the guide-ways.

*f f* are the wash-boards, which are slipped into the spaces between the ends of the boards *a* and of the box, and which may be readily withdrawn therefrom.

*h h* are grooves, made one in the upper side of the head *i* of one of the wash-boards, and the other in the lower side of the head *k* of the other wash-board, these grooves being made for the purpose of affording the handle *e* sufficient length of play.

When the sliding head B is to be removed, for any cause, from the suds-box, the wash-boards *f* are first withdrawn. The sliding head is then endwise until its two corner projections *l* slip off the guide-ways.

These two projections are then lifted above the guide-ways, and the sliding head moved in the opposite direction until its other two corner projections slip off the guide-ways. It may then be removed from the box.

When the sliding head is to be replaced on the guide-ways, it is first dropped into one end of the box, then moved toward the other end, two of its grooved plates *d* meantime catching on the guide-ways.

At the opposite end of the box the two remaining corner projections *l* drop so as to bring their grooved plates *d* to the level of the guide-ways. On moving the sliding head in the reverse direction, these two latter grooved plates catch on the guide-ways.

The sliding head is now duly connected with the guide-ways, and the wash-boards *f* being slipped into place, the machine is ready for use.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The box A, provided with the guide-ways *b*, in combination with the wash-boards *f*, and sliding head B, provided with the corner projections *l* and grooved plates *d*, constructed as and for the purpose specified.

HENRY J. MORELAND.

Witnesses:

SOLON C. KEMON,

CHAS. A. PETTIT.