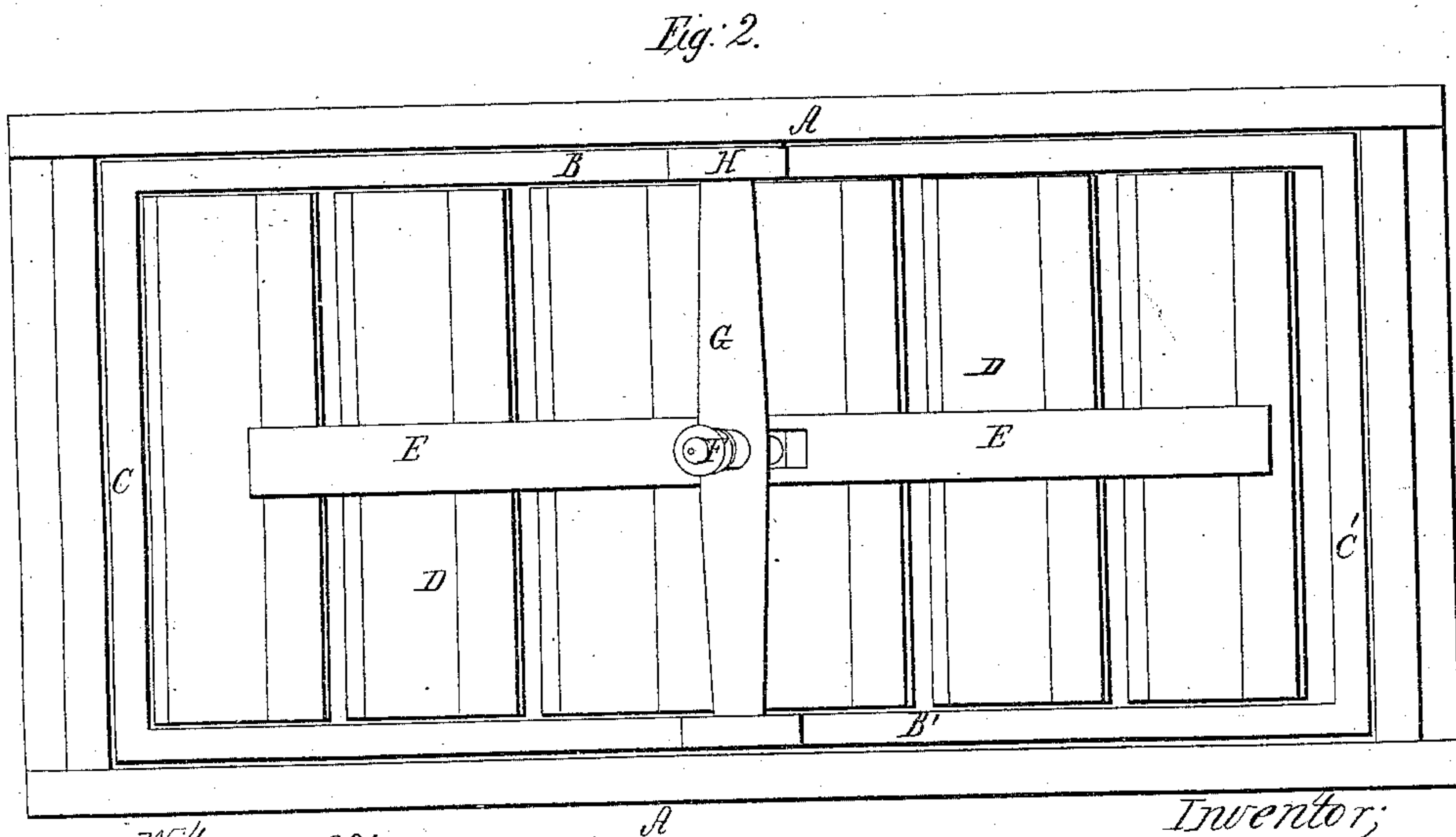
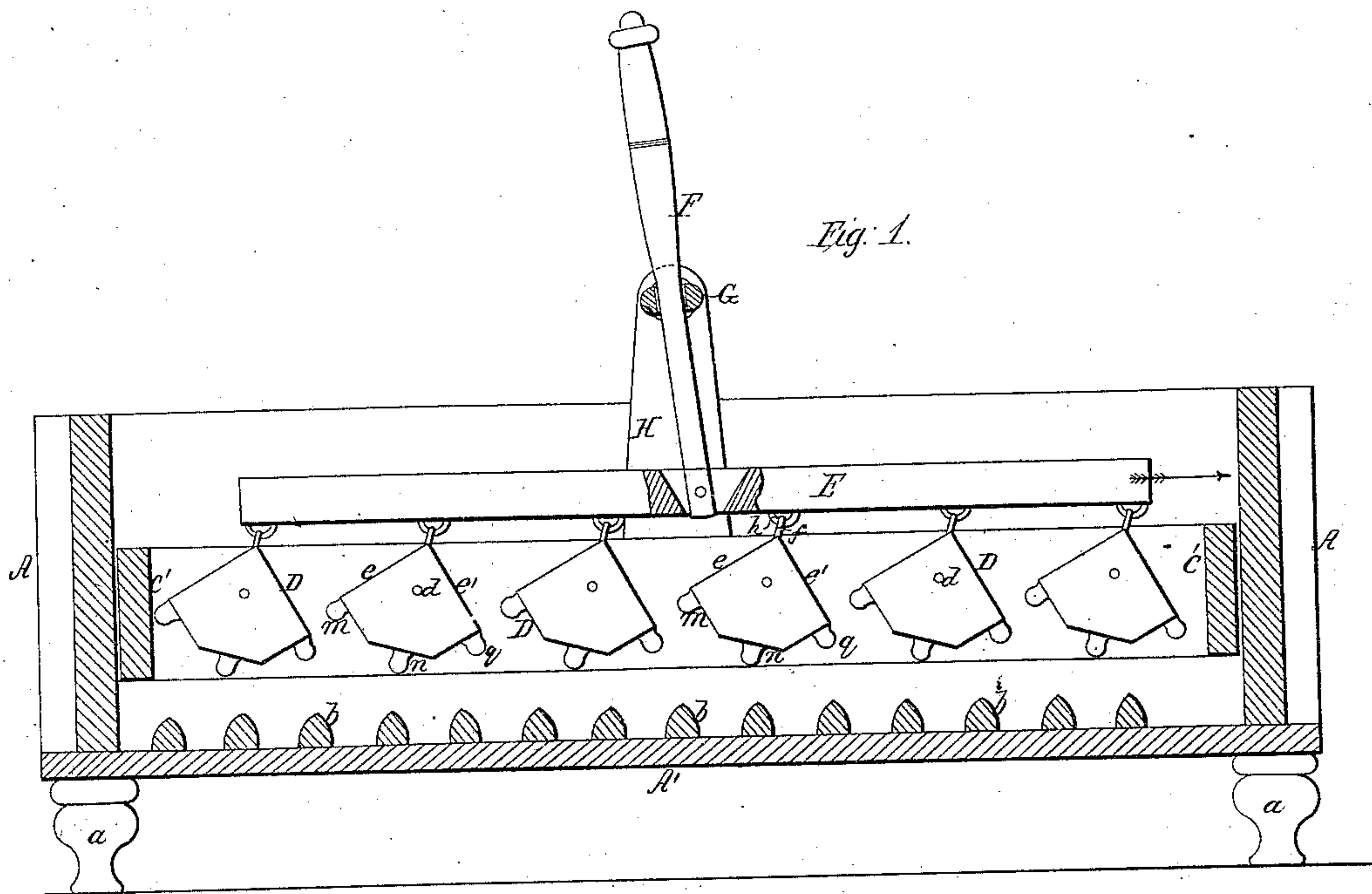


*G. L. Witsil,*

*Washing Machine,*

*N<sup>o</sup> 34,340.*

*Patented Feb. 4, 1862.*



*Witnesses;*  
*Charles E. Foster*  
*C. Howson*

*Inventor;*  
*Henry Howson*  
*Att'y for G. L. Wit*

# UNITED STATES PATENT OFFICE.

GEORGE L. WITSIL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND LEVI S. HACKER, OF SAME PLACE.

## IMPROVED WASHING-MACHINE.

Specification forming part of Letters Patent No. 34,340, dated February 4, 1862.

*To all whom it may concern:*

Be it known that I, GEORGE L. WITSIL, of Philadelphia, Pennsylvania, have invented an 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 drawings, and to the letters of reference marked thereon.

My invention consists of a frame with certain ribbed blocks, a horizontal bar, and a lever, in combination with a vessel having permanent ribs at the bottom, the whole being arranged and operating as described herein-after, so that clothes may be thoroughly cleansed by the combined action of the ribbed blocks and stationary ribs, and by the agitation of the water in the vessel.

In order to enable others to make and use my invention, I will now proceed to describe its construction and operation.

On reference to the accompanying drawings, which form a part of this specification, Figure 1 is a side view of my improved washing-machine with one side of the vessel removed, and Fig. 2 is a plan view.

A is an oblong water-tight vessel open at the top and supported on suitable legs *a a*, the bottom *A'* of the vessel being provided with a number of transverse ribs *b*, placed at a suitable distance apart from each other, each rib being rounded at the sides, diminishing in width from the base upward and terminating at the top in a rounded edge, as seen in Fig. 1. In the inside of this vessel is a frame composed of the opposite longitudinal side pieces *B* and *B'*, connected together at the opposite ends by the transverse pieces *C* and *C'*, the length and width of this frame being such that while it will fit snugly in the vessel *A* it can be readily removed therefrom.

Between the opposite sides of this frame are arranged a series of blocks *D*, each block being provided at one end with a pin or journal *d*, fitting in an orifice in the side piece *B*, and at the opposite end with a similar pin fitting into a similar orifice in the opposite side piece *B'*. The two sides *E* and *E'* of each

block are situated at right angles to each other, there being a staple *f* at the point where these two sides meet and midway between the opposite ends of the block. Each staple is connected to an eye *h* on the under side of the horizontal bar *E*, to which is connected the lower arm of the lever *F*, the latter passing through and fitting loosely in a cross-bar *G*, the opposite ends of which turn in standards *H H*, secured one to the longitudinal piece *B* and the other to the longitudinal piece *B'* of the frame, so that on vibrating the lever *F* a longitudinal reciprocating motion will be imparted to the bar *E*, and consequently a simultaneous vibrating motion to the whole of the blocks *D D* on their respective journals. On each block are the three rounded ribs *m, n*, and *p*, all of which project to the same or nearly the same distance from the center of vibration of the block, one rib *m* being situated near the side *e* of the block, the rib *q* near the side *e'*, and the third rib *n* at a point midway between the other two.

The reciprocating movement of the bar *E* is limited by the blocks, for when the sides *e* of the blocks are in contact with the under side of the bar the latter has reached the limit of its movement in the direction of the arrow, and when the sides *e* of the blocks are in contact with the bar it has reached the limit of its movement in the direction contrary to that pointed out by the arrow. The clothes having been deposited in the vessel and a proper supply of water with soap or its equivalent poured into the same, the frame with its blocks is placed on the top of the clothes and a vibrating motion is imparted to the lever *F*, more or less downward pressure being at the same time applied to the lever, so as to cause the blocks to bear with more or less weight on the clothes. As the blocks vibrate, the ribs are brought to bear on the clothes in succession, so as to partially knead them and partially drag them over the stationary ribs *b b* at the bottom of the vessel, the position of the clothes being constantly changed, so that every part is operated on by the ribs of the



vibrating blocks or by the stationary ribs *b* and exposed to the cleansing action of the water, which is agitated by the vibration of the blocks and which tends to force the dirt from the interstices of the fabric.

I claim as my invention and desire to secure by Letters Patent—

The frame with its vibrating ribbed blocks *D*, horizontal bar *E* and lever *F*, in combination with the vessel *A* and its permanent ribs

*b*, the whole being arranged and operating as and for the purpose herein set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEO. L. WITSIL.

Witnesses:

HENRY HOWSON,  
JOHN WHITE.