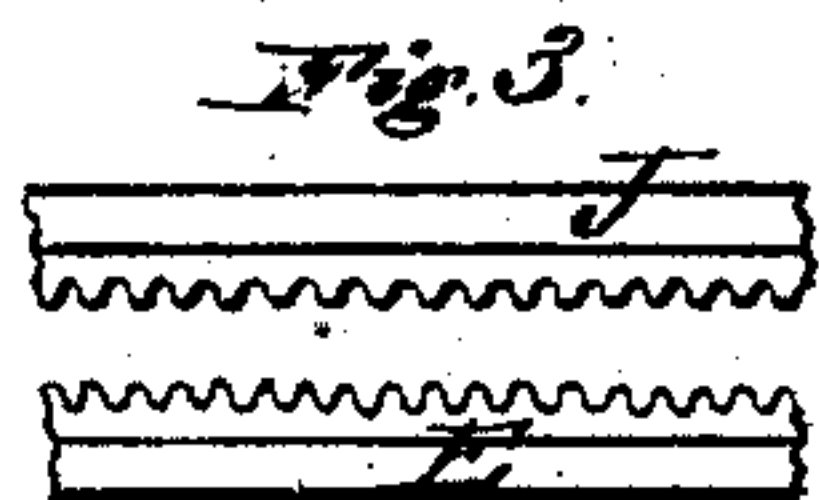
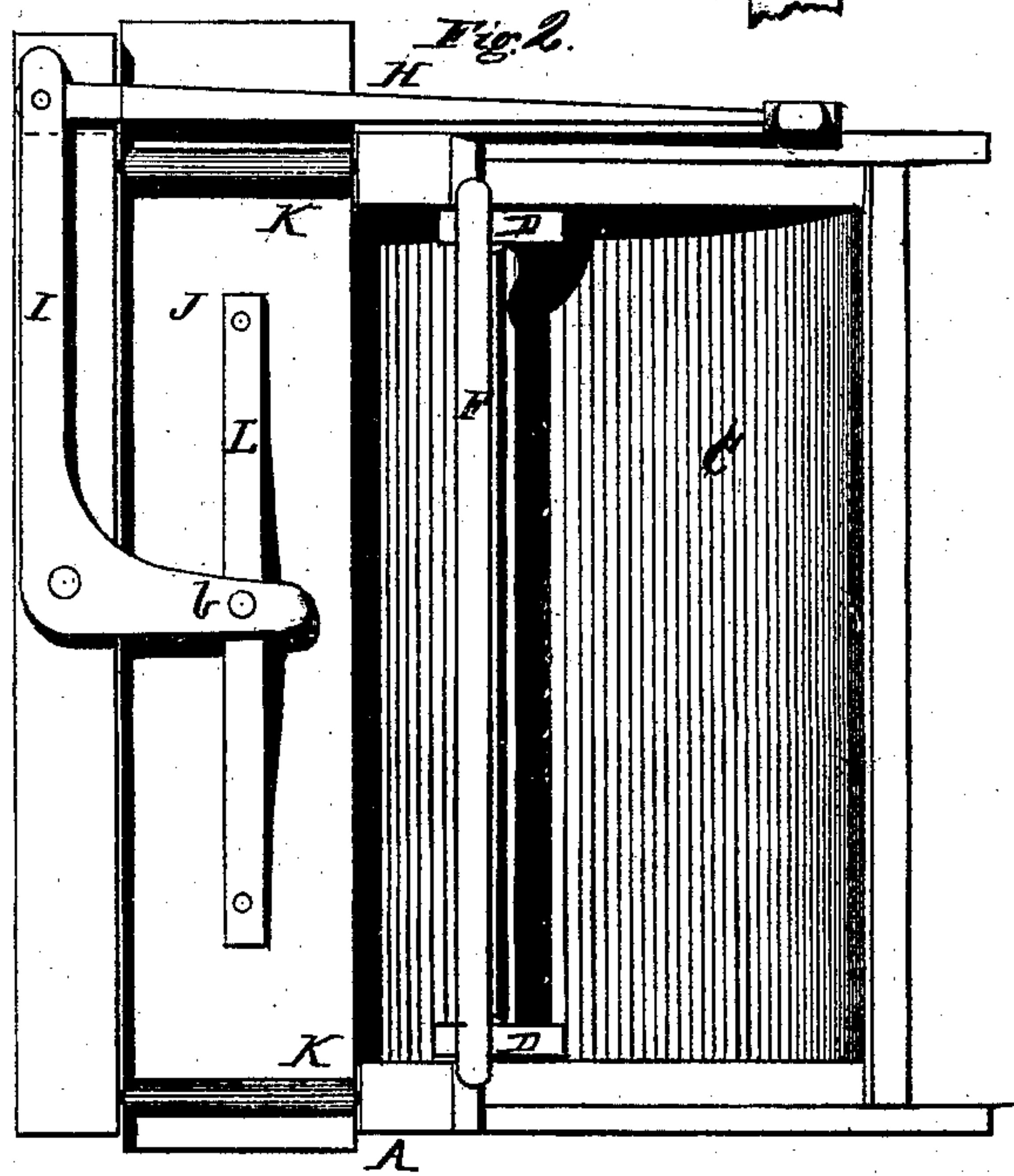
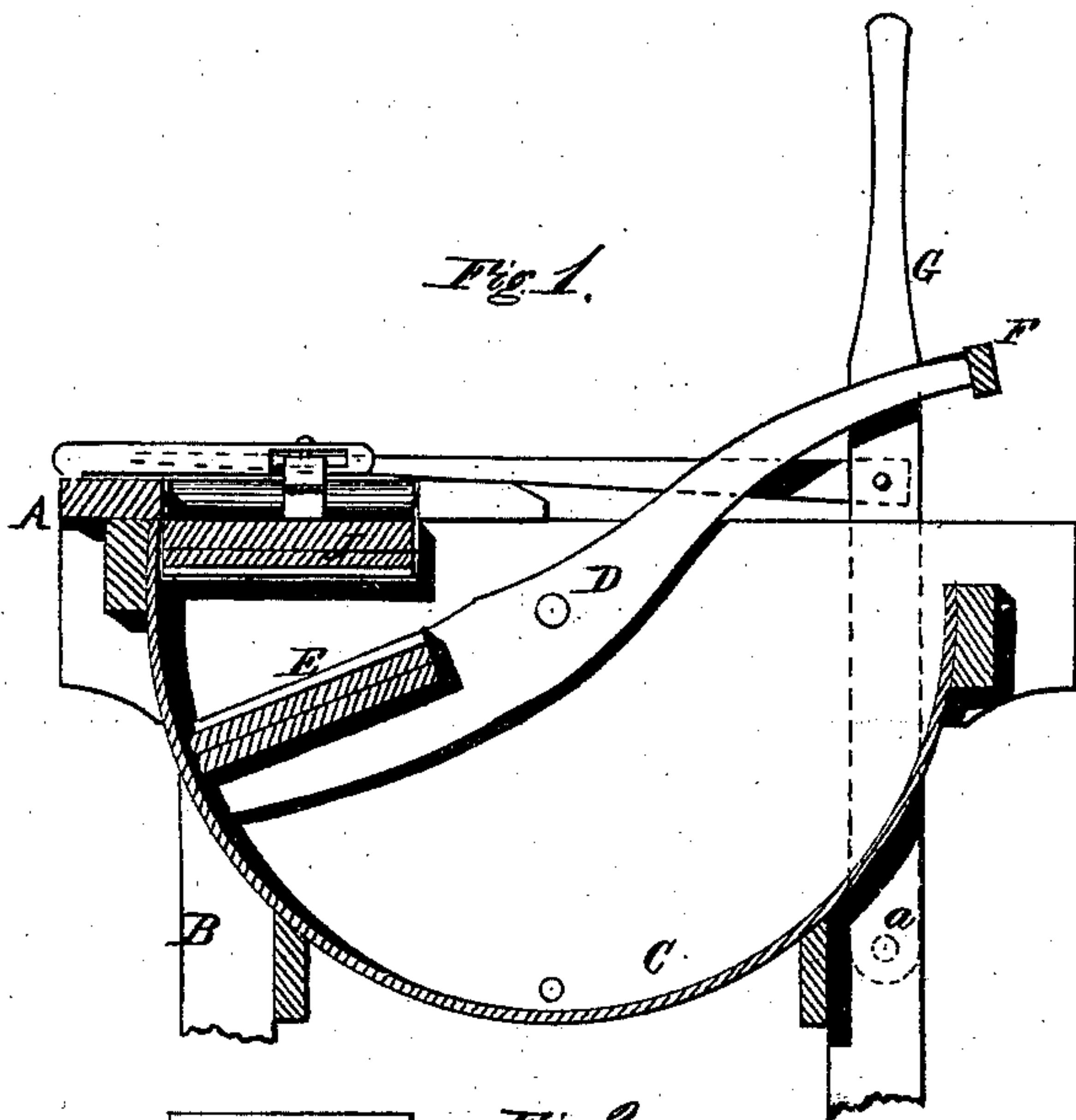


*Osman & Curl,*

*Washing Machine.*

*No. 113,444.*

*Patented Apr. 4. 1871.*



*Witnesses.*

*Harry King.*  
*Phil. S. Dodge,*

*Inventors.*

*John Osman*  
*John Curl*  
*by Dodge & Munn.*  
*their attys.*

# United States Patent Office.

JOHN OSMUN AND JOHN CURL, OF ROCKPORT, NEW JERSEY.

Letters Patent No. 113,444, dated April 4, 1871.

## IMPROVEMENT IN WASHING-MACHINES.

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

*To all whom it may concern:*

Be it known that we, JOHN OSMUN and JOHN CURL, of Rockport, in the county of Warren and State of New Jersey, have invented certain Improvements in Washing-Machines, of which the following is a specification, reference being had to the accompanying drawing.

Our invention relates to washing-machines, and consists in the novel construction and arrangement of certain mechanical devices by which the articles to be washed are held between two corrugated surfaces, one of which applies any desired pressure, while the other has a reciprocating motion and does the necessary rubbing, as hereinafter explained.

In the drawing—

Figure 1 is a transverse vertical section of the machine;

Figure 2 is a top plan view of the same; and

Figure 3 is a cross-section of the corrugated surfaces.

In constructing this machine a frame, A, is made of any size desired, with suitable legs or supports, B.

In this frame a tub, C, having vertical ends and a curved or circular bottom, is arranged as shown in fig. 1.

Within this tub, and to the inner sides of its ends, are pivoted two levers, D, one on each side, as shown in the same figure.

The inner ends of these levers are connected by a broad cross-piece, E, having its upper surface corrugated with corrugations similar to those shown in fig. 3.

The outer ends of the levers are connected by another cross-piece, F, which serves as a handle to operate them, as shown in figs. 1 and 2.

The length of the inner arms of these levers is such that, when operated, the board or cross-piece E will keep close to the interior surface of the tub, as shown in fig. 1.

At one end, and near the front side of the machine, a hand-lever, G, is pivoted near its lower end at *a*, and so as to stand in a vertical position, as shown in said fig. 1, and is connected by a rod, H, to one arm of an elbow-lever, I, pivoted upon the back side of the machine, as shown in fig. 2. The connecting-rod H turns freely on its points of connections.

The elbow-lever I is connected at its other end to a board, J, arranged to move in guides longitudinally under friction-rollers K.

This connection of the lever to the board may be by means of a pin, *b*, passed through its end, and

through a curved metal spring, L, attached to the board, the spring passing through a slot in the end of the lever, as shown in figs. 1 and 2, or by any other suitable devices.

The board J has its under side corrugated, and is so arranged as to be immediately over the board E when the latter is swung up toward it.

The friction-rollers K may be made of rubber or other elastic material, if desired.

In operating the machine thus constructed, the water and article or articles to be washed are placed in it, the latter in front of the board E.

The operator then takes the handle F of the levers D in one hand and the handle of the lever G in the other. With the former he agitates the articles in the water as long as desired, and then raises them up against the board J and holds them there with any desired pressure; at the same time he rocks the lever G, which, by means of the connecting-rod H and crank-lever I, gives to the board J a reciprocating movement, causing it to rub the articles interposed between it and the board E, and thus to thoroughly loosen all the dirt or other foreign substance that may be in them.

It will be seen that a machine thus constructed may be used to wash the smallest article as well as the largest; that any desired pressure may be applied within the limit of the operator's strength; and that the articles to be washed can both be dashed about in the water as well as thoroughly washed by the reciprocating board.

Having thus described our invention,

What we claim is—

1. The combination of the lever G, rod H, elbow-lever I, and board J with levers D and board E, when constructed and arranged as herein described, for the purpose of applying a variable pressure and a rubbing surface at the same time, as set forth.

2. In combination with the boards E and J and the elbow-lever I, the spring L and rollers K or their equivalents, substantially as and for the purpose set forth.

3. The combination of the swinging board E and reciprocating board J, when constructed and arranged to be operated substantially as and for the purpose set forth.

JOHN OSMUN.  
JOHN CURL.

Witnesses:

ISAAC S. DILE,  
DANIEL AXFORD.