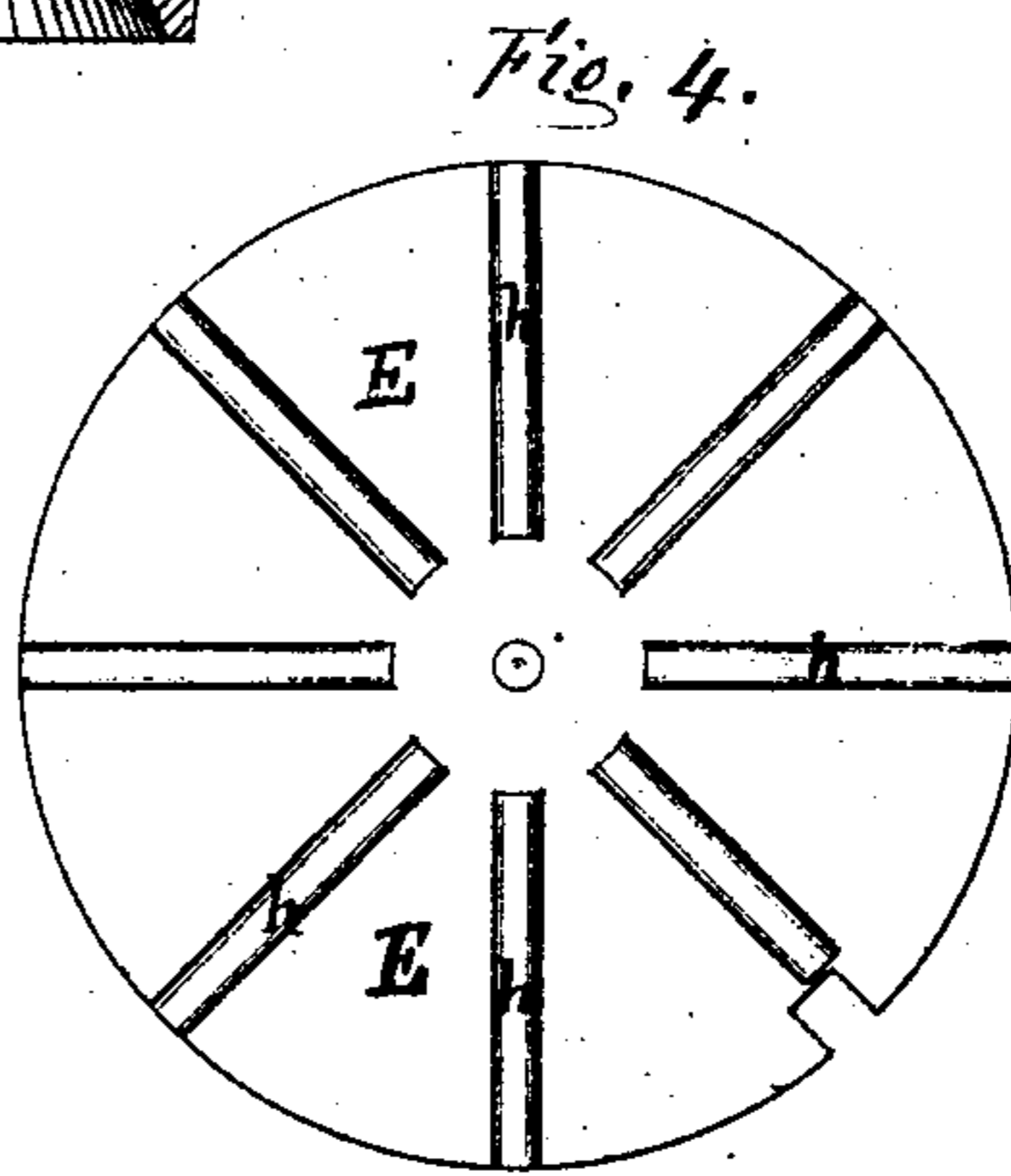
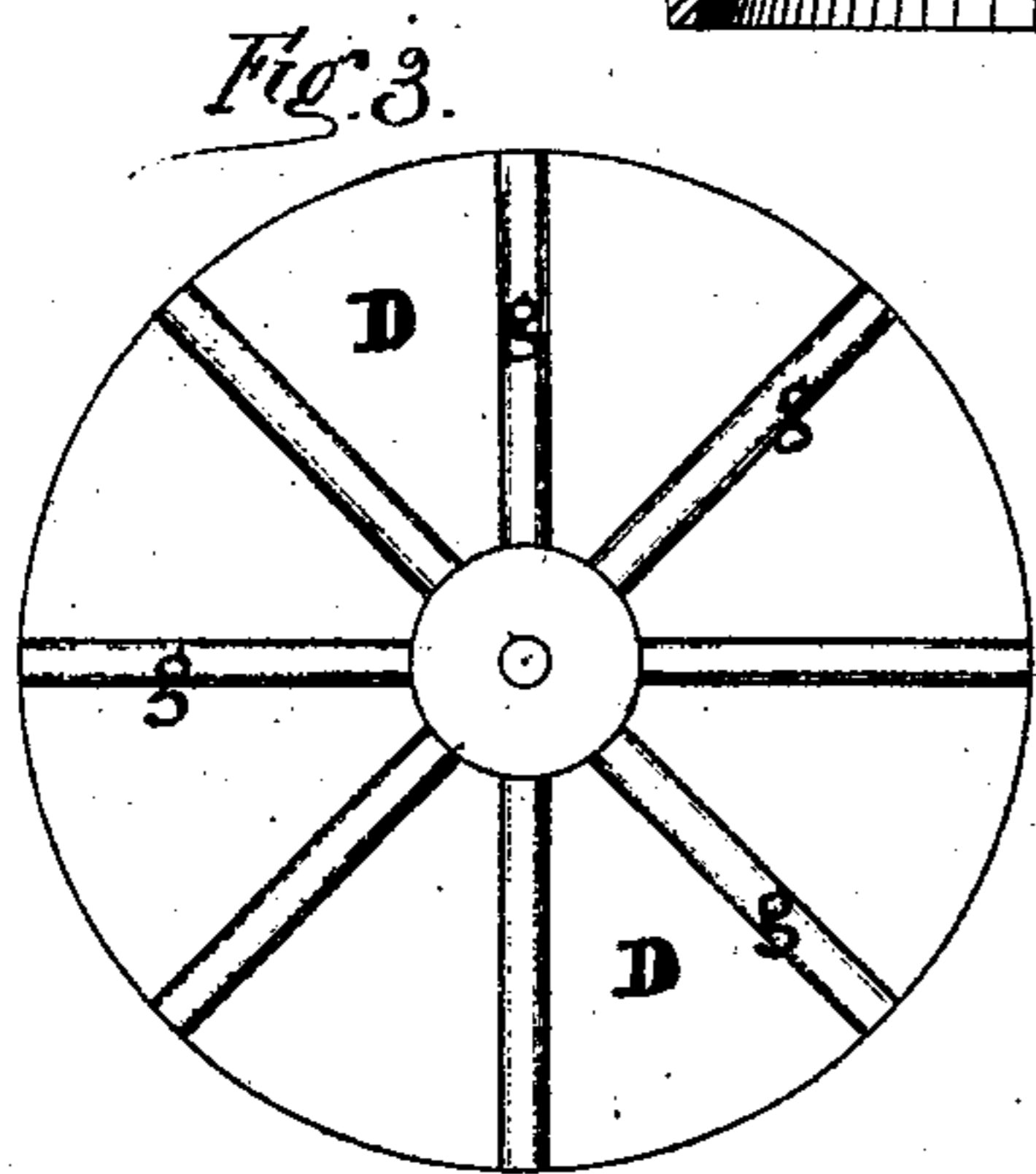
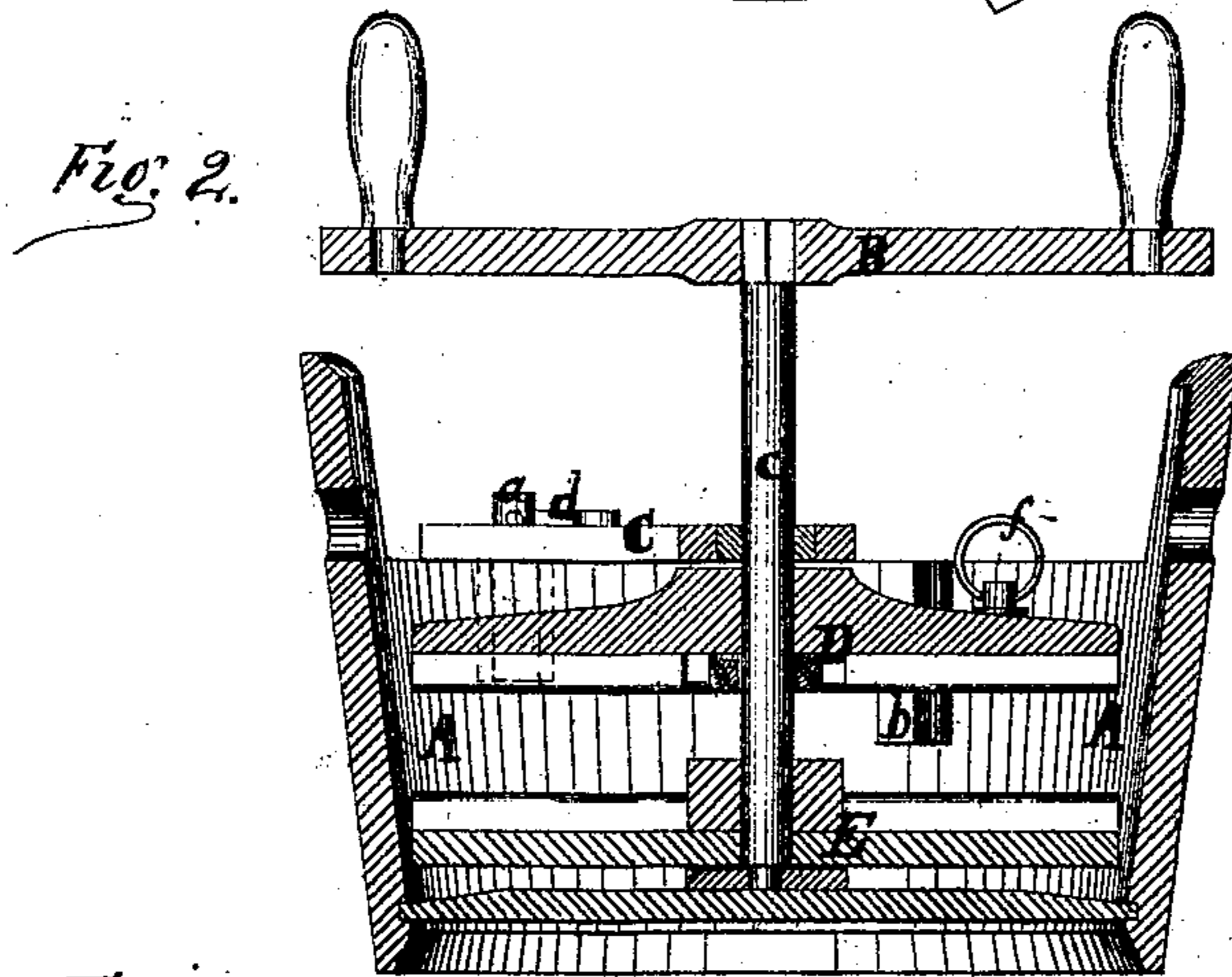
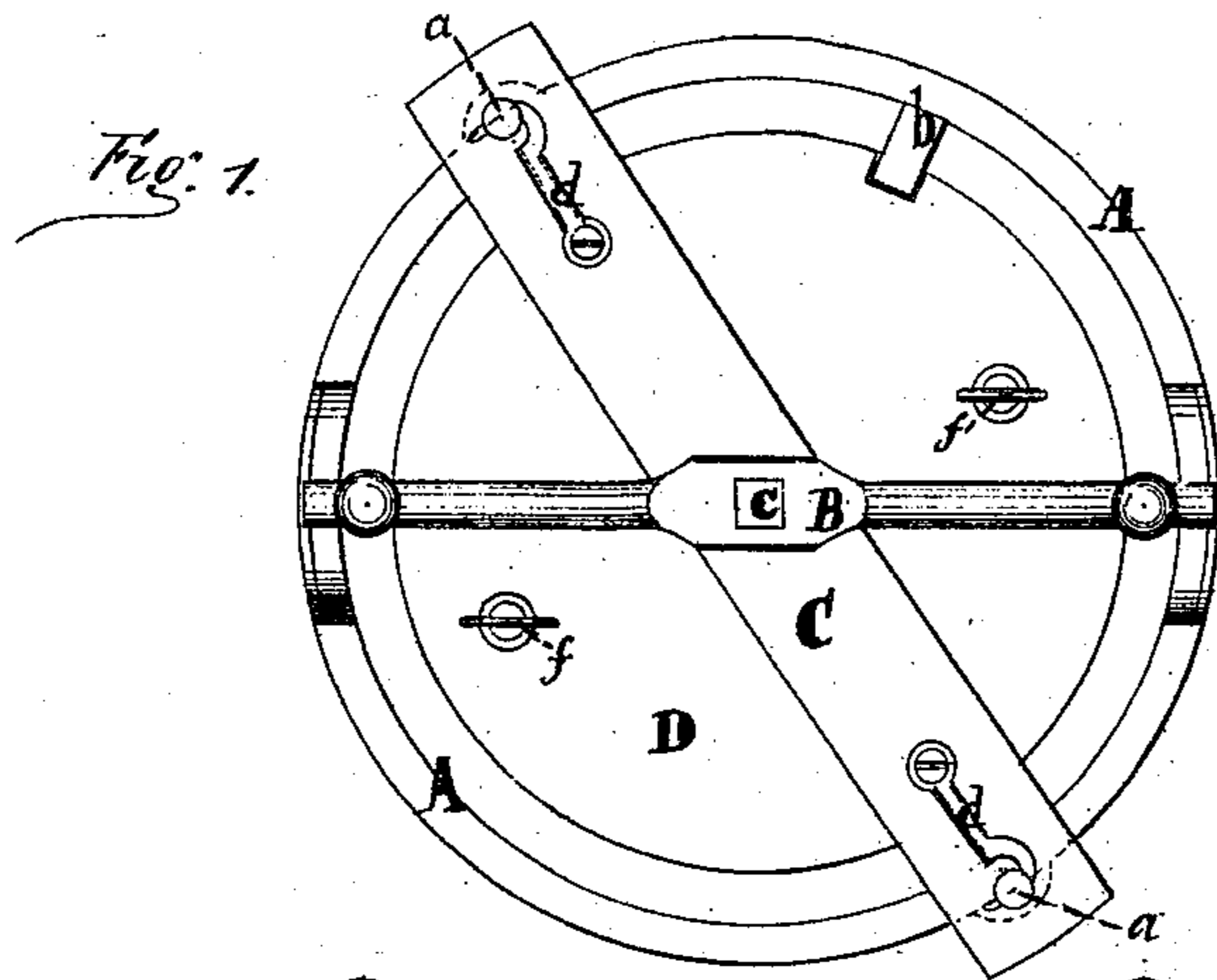


J. G. Raymond,

Washing Machine.

No. 109840.

Patented Dec. 6, 1870.



Witnesses:
W. Clayton
J. M. Caperton

Inventor:
J. G. Raymond
by his atty
W. Clayton & Co.

UNITED STATES PATENT OFFICE.

JOHN G. RAYMOND, OF RONDOUT, NEW YORK.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **109,840**, dated December 6, 1870.

To all whom it may concern:

Be it known that I, JOHN G. RAYMOND, of Rondout, in the county of Ulster, and in the State of New York, 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, in which—

Figure 1 is a top view. Fig. 2 is a vertical section through the center of the machine. Fig. 3 is a plan view, showing the bottom revolving rubber-board. Fig. 4 is an inverted view of the top or stationary rubber-board.

The nature of my invention consists in placing the clothes between a stationary rubber not revolving, but which may rise vertically to accommodate itself to the amount of clothes to be washed, and a bottom revolving rubber which is revolved by the handle and shaft, thus washing upward or above the revolving rubber instead of below it, as usual in rubber washing-machines, as hereinafter set forth.

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

In the construction of my invention I may use any ordinary wash-tub, to which I attach my improvements.

In Fig. 1, A is the tub, on the outer side of which I attach lugs *a a*, and on the inner side is attached a cleat, *b*, which extends over half the depth of the tub, and which is intended to prevent the top rubber-board from revolving; *c*, the shaft; B, the bar, to which are fixed the handles. This bar fits, by means of a mortise, on the top of shaft *c*, and is used to operate the bottom rubber-board. C is a cross-bar, through the center of which the vertical shaft *c* passes, and which keeps the shaft in its proper position. At each end of the cross-bar are holes to receive the lugs *a a*, and are then fastened in position by hooks *d d*. D is the upper and stationary rubber, in which is a slot, *i*, which receives the cleat *b* on the inner side of the tub.

In Fig. 2, A is the tub; B, the bar to which the handles are attached, and which is on the shaft *c* to operate the bottom rubber-board; C, the cross-bar; *a*, one of the lugs; D, the sta-

tionary rubber-board; E, the bottom rubber-board, and is revolved by the shaft *c*, which is attached to it, and passes through it, and has a journal on its lower end, which fits into a step in the center of the bottom of the tub, (marked *e*); *f*, rings for lifting out the stationary rubber-board D; *b*, the cleat.

In Fig. 3, *g* is the rubbers, which are attached to the bottom face of the rubber-board D. These rubbers are made round on their rubbing-surface, and are placed on the board in position, as shown in Fig. 3.

Fig. 4, *h h* are the rubbers placed on the upper face of the bottom board, E, in position, as seen in said figure; *i*, the slot in the edge of the upper board, D.

In the operation of my invention, having applied to any ordinary wash-tub the lugs *a a*, cleat *b*, and step *e*, I then insert the revolving rubber-board E, and the journal is let into the step. The machine is now ready to receive the clothes to be washed. The clothes are now spread over the surface of the board until a sufficient quantity is put in for one operation. I then take the upper rubber, D, and slip it down on the shaft *c*, and letting the slot *i* pass around cleat *b* until it rests down on the clothes with its full weight. I then put the cross-bar C on the shaft and slide it down until the holes in each end of it slip down on lugs *a a*, where their ends are secured by hooks *d d*. I may find it convenient to insert a spiral spring around the shaft between the cross-bar and rubber to add additional resistance in weight to the rubbing-board in washing. I then set on the bar B, with its handles on the end of shaft *c*, and my invention is ready for operation as soon as the water is put into the tub. The handles are then moved to and fro, causing the bottom board, with rubbers, to move back and forward under the clothes, thus washing them above the revolving rubbers, and up against the stationary rubbers, thus allowing all the sediment washed out of the clothes to fall down on the board between the rubbers, and to be washed down on the bottom of the tub, instead of the dirt being left to remain in with the clothes until lifted out of the water. When done, the parts are unshipped and the clothes taken out, and the operation repeated when required.

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

The combination of the rubbers E and D, bar C, tub A, handle B, cleat b, and slot i, constructed as described, and operating as and for the purposes set forth.

In testimony that I claim the above-de-

scribed certain new and useful improvements in washing-machines I have hereunto signed my name this 5th day of August, 1870.

JOHN G. RAYMOND.

Witnesses:

A. T. DOUGLAS,
CHARLES O. REILLY.