

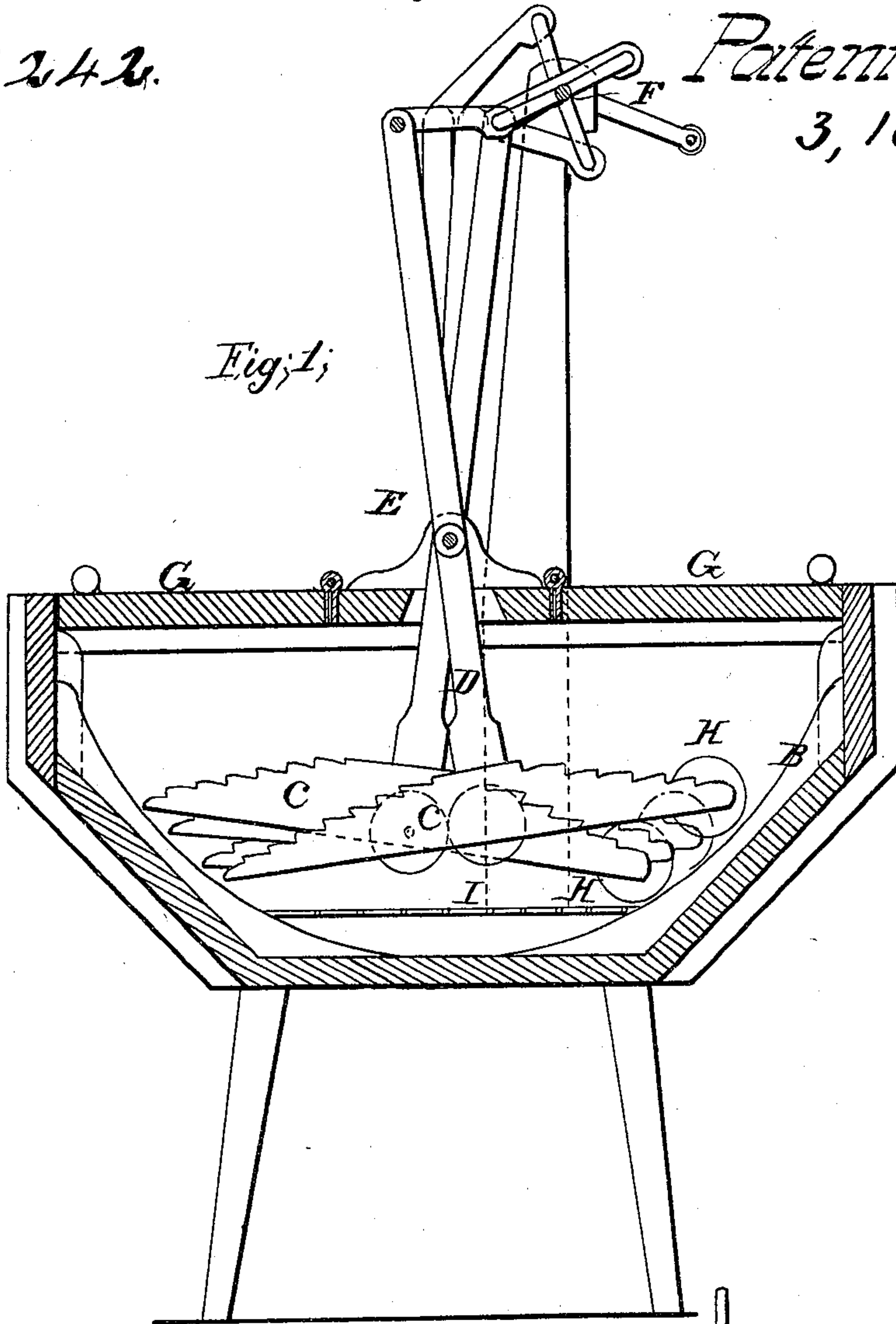
*J. M. Starr, Jr.*

*Washing Mach.*

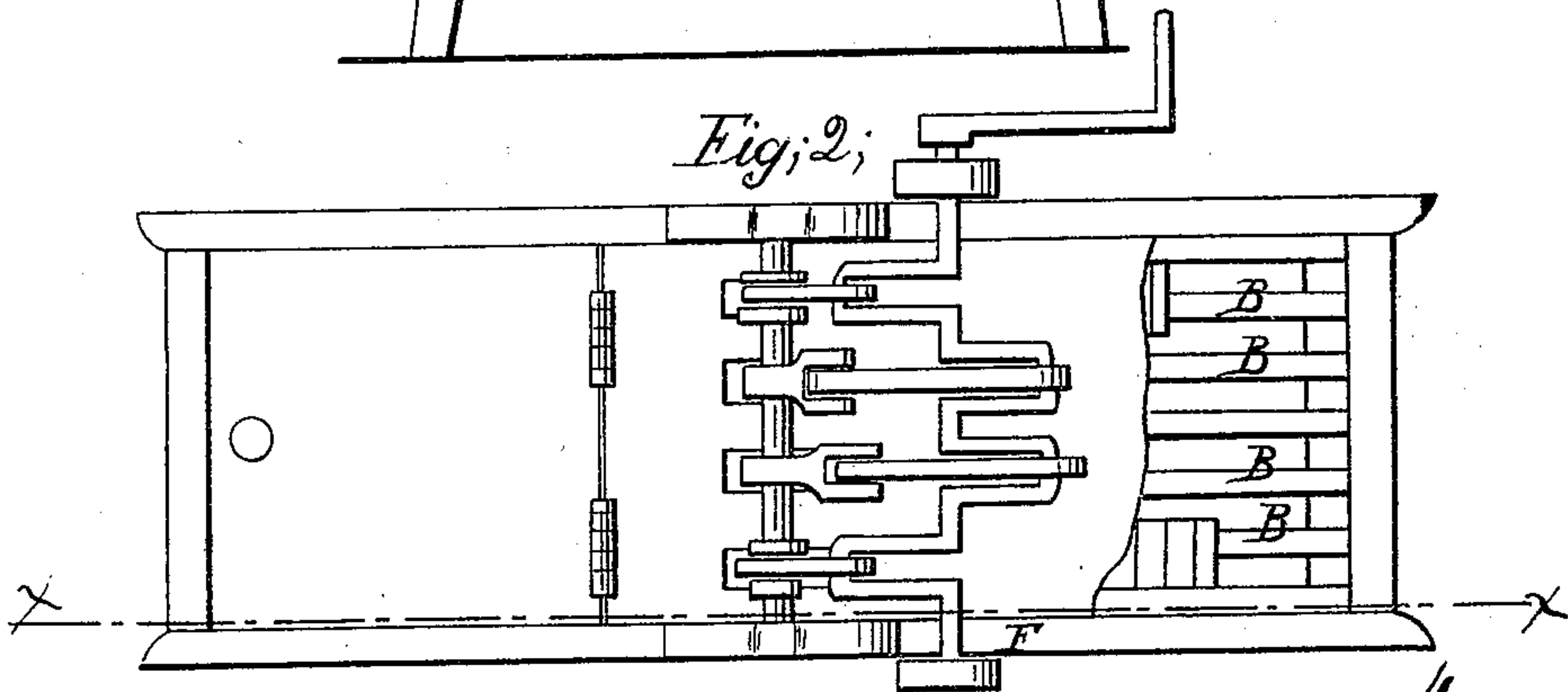
*No 93,242.*

*Patented Aug.  
3, 1869.*

*Fig. 1;*



*Fig. 2;*



*Witnesses;*

*John Becker.  
Anna Morgan*

*Inventor;  
J. M. Starr, Jr.*

*My Attorneys*

# United States Patent Office.

J. M. STARR, JR., OF FOND DU LAC, WISCONSIN, ASSIGNOR TO HIMSELF AND GEORGE D. TROMBLY, OF SAME PLACE.

*Letters Patent No. 93,242, dated August 3, 1869.*

## IMPROVEMENT IN 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, J. M. STARR, Jr., of Fond du Lac, in the county of Fond du Lac, and State of Wisconsin, have invented a new and useful Improvement in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to improvements in washing-machines, designed to provide a simple, cheap, and economical construction and arrangement of the same.

It consists in providing one end of a series of notched beaters or agitators, suspended upon levers, pivoted at the centre, with rollers, which are adapted to move over the clothes in the bottom of the tub, for the purpose of squeezing the same, said tub being provided with a series of longitudinal ribs upon its curved bottom, upon which the clothes are rubbed by the beaters.

Figure 1 represents a sectional elevation of my improved machine, and

Figure 2 represents a plan view of the same.

Similar letters of reference indicate corresponding parts.

A represents the tub, having a curved bottom, provided with the ribs B. The bottom may, if preferred, be formed of three or more plane sides.

C represents a series of beaters, suspended at the centre of their length by the levers D, journaled at E, which is the centre of the curvature of the ribs. The beaters are notched upon the upper sides, which are bevelled downward, and thereby continually change the position of the clothes resting thereon.

In a recess formed in one end of each beater is jour-

nalled a roller, H, which, as the beaters move over the clothes in the bottom of the tub, serve to press upon such clothes, and thereby expel the dirty water from the same, in a manner similar to the squeezing and rubbing actions in ordinary hand-washing. When additional labor is required to wash the clothes, they may be transferred to the opposite end of the suds-box, and subjected to pressure from the ends of the beaters that are not provided with rollers.

The said levers rise sufficiently above the said centre to receive motion from a crank-shaft, F, suspended in uprights rising from the top of the tub.

The cranks are so arranged as to cause a part of the beaters to move in one direction, while another part are moving in another, whereby the effect is increased.

Doors, G, are provided each side of the centre, E, for access to either part of the tub, which is separated by the levers D, and forms a convenient arrangement for washing clothes in separate lots at the same time.

I is a removable perforated bottom, upon which the clothes rest, and through which the dirt from the clothes passes to the bottom of the tub. From the latter it can be withdrawn through the bottom or side by a cock, or other suitable device.

Having thus described my invention,

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

The rollers H, in combination with the double-ended beaters C, the curved longitudinal ribs B, in the tub or box, and the false bottom I, all arranged and operating as described, for the purpose specified.

J. M. STARR, JR.

Witnesses:

DANL. E. DWYER,  
GEO. D. TROMBLY.