

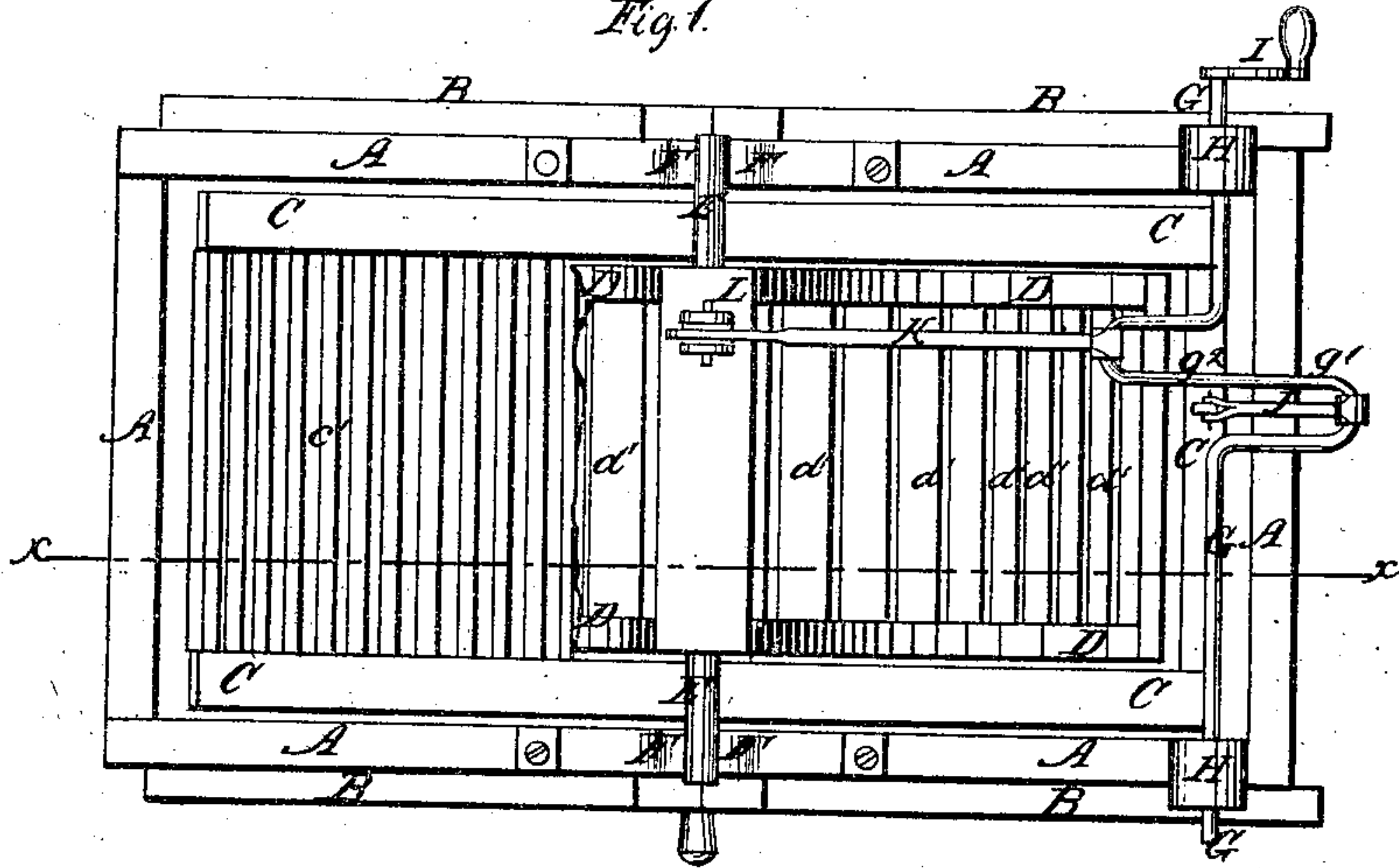
*E. Knock,*

*Washing Machine.*

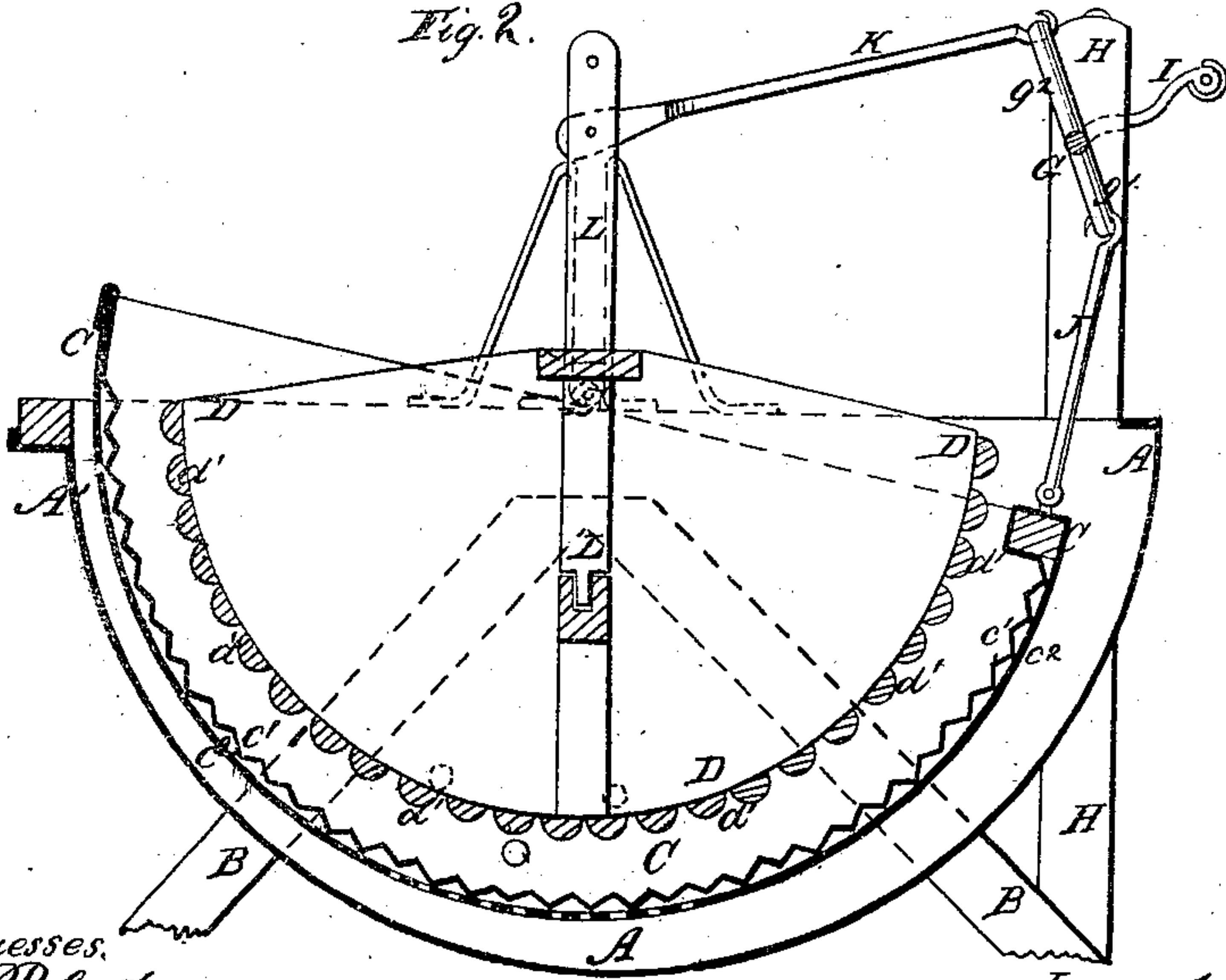
*NO. 113064.*

*Patented Mar. 28. 1871.*

*Fig. 1.*



*Fig. 2.*



*Witnesses.*

*P. C. Dietrich*

*Wm. C. C. Smith.*

*Inventor.*  
*E. Knock*

*per. Munn & Co.*  
*Attys.*



# UNITED STATES Patent Office.

EDWIN KNOCK, OF VERMONT, ILLINOIS.

Letters Patent No. 113,064, dated March 28, 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 I, EDWIN KNOCK, of Vermont, in the county of Fulton and State of Illinois, 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 drawing forming part of this specification, in which—

Figure 1 is a top view of my improved machine, part of the rubber being broken away to show the construction.

Figure 2 is a vertical longitudinal section of the same taken through the line *x x*, fig. 1.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved washing-machine, simple in construction, effective in operation, and convenient in use; and

It consists in the construction and combination of various parts of the machine, as hereinafter more fully described.

A is the outer box or tub of the machine, which is made semi-cylindrical in form, and is supported upon legs B of such a length as to raise the machine to a convenient height.

C is the receiver, into which the clothes are placed to be washed.

The receiver C is also made semi-cylindrical in form, and of such a size as to fit loosely into and work freely in the interior of the box A.

The receiver C is pivoted to the sides of the box A, so that it may be rocked upon said pivots.

The bottom of the receiver C is made double, the inner plate or bottom *c<sup>1</sup>* being corrugated transversely, as shown in figs. 1 and 2, so as to have about the form of a hand-rubbing board, the outer plate or bottom *c<sup>2</sup>* being made smooth to encounter less resistance in passing through the water.

The lower or middle parts of the two bottoms *c<sup>1</sup>* *c<sup>2</sup>* have numerous holes formed through them, to allow the water to pass in and out freely.

A number of larger holes are also formed through the lower parts of the sides of the receiver C, to facilitate the circulation of the water.

D is the rubber, which is also made semi-cylindrical in form, and of such a size as to fit loosely into and work freely in the interior of the receiver C.

The convex side of the rubber D is formed by attaching parallel strips *d'* to the curved edges of the sides of said rubber.

The strips *d'* are so arranged as to leave narrow spaces between them for the free passage of the water, and their outer sides are rounded off so as to prevent

the said strips from presenting any sharp corners to cut the clothes.

To the upper parts of the sides of the rubber D are attached journals E, which work between standards F, or in slotted standards attached to the box A, so that the said journals may work in a higher or lower position, according to the thickness of the clothes between the convex bottom of the rubber D and the concave bottom of the receiver C.

G is a shaft, which works in bearings in the upper ends of the standards H attached to the sides of the box A at one end of the machine.

To one end of the shaft G is attached a crank, I, by means of which the machine is operated.

Upon the middle part of the shaft G are formed two cranks, *g<sup>1</sup>* *g<sup>2</sup>*, projecting in opposite directions from the line of the said shaft.

To one of these cranks, as *g<sup>1</sup>*, is pivoted the upper end of the connecting-rod J, the lower end of which is pivoted to the end of the receiver C, so that the said receiver may be rocked upon its pivots by the revolution of the shaft G.

To the other crank, as *g<sup>2</sup>*, is pivoted one end of the connecting-rod K, the other end of which is pivoted to the standard L attached to the rubber D, so that the said rubber may be rocked upon its journals by revolving the shaft G.

By this construction the receiver C and rubber D will move in opposite directions, and will thus produce a much greater effect upon the clothes placed between the said parts.

The rod K is adjustably pivoted to the standard L, so that by moving it up or down upon said standard the throw or amount of movement of the rubber D may be regulated at will.

In using the machine, the clothes are placed in the receiver C and the rubber D is placed upon them, and by operating the crank I the clothes will be rubbed between the two moving surfaces, cleaning them perfectly in a very short time.

Having thus described my invention,

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

An improved washing-machine, formed by the combination of the semi-cylindrical box A, semi-cylindrical movable receiver C *c<sup>1</sup>* *c<sup>2</sup>*, semi-cylindrical rubber D *d'*, standard L, connecting-rod K, crank-shaft G *g<sup>1</sup>* *g<sup>2</sup>*, connecting-rod J, and crank I, with each other, said parts being constructed and operating substantially as herein shown and described, and for the purpose set forth.

Witnesses:

J. O. NELSON,  
GEORGE W. DENNY.

EDWIN KNOCK.