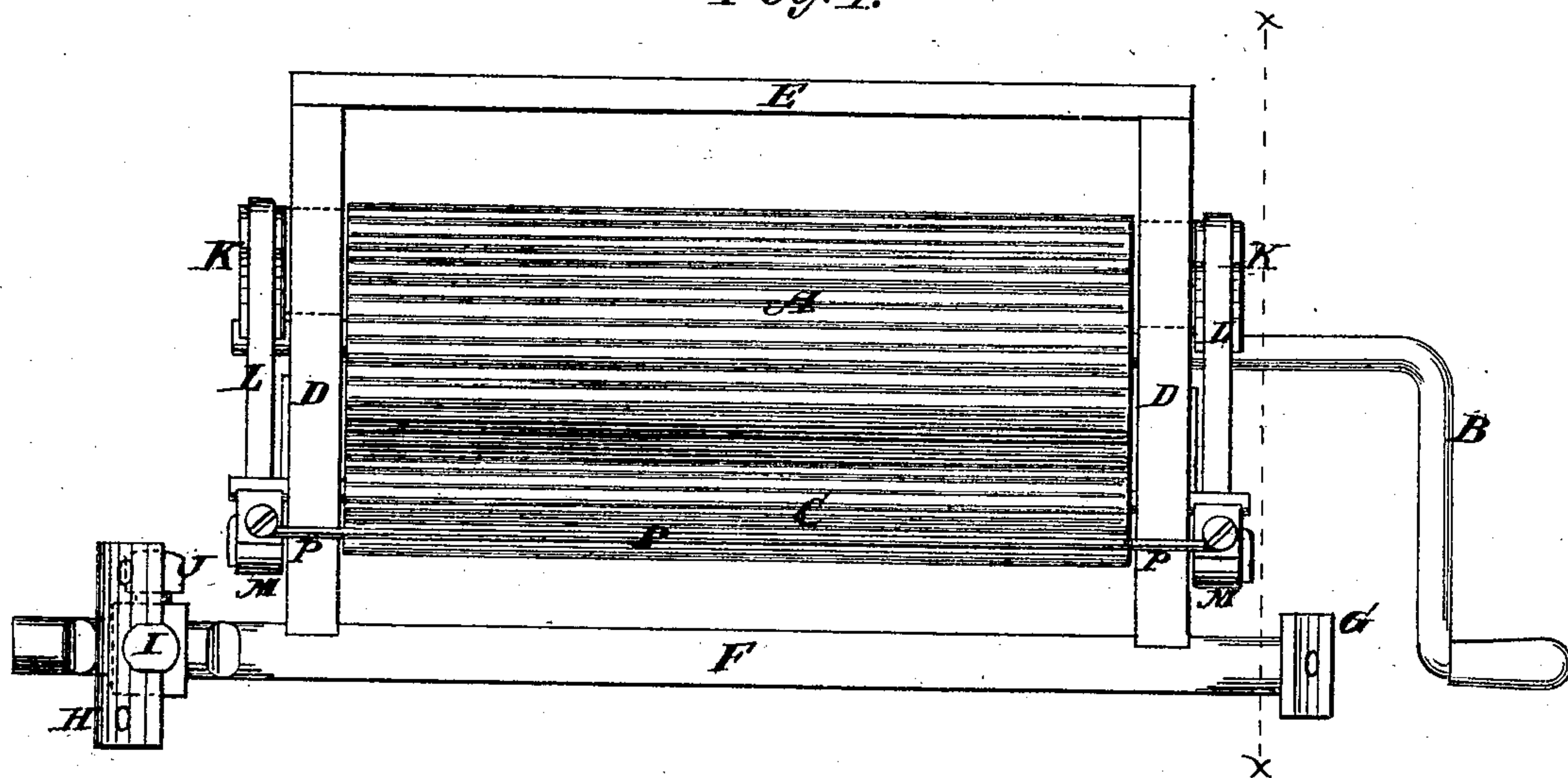


**M. L. HAWKS.**  
**Washing-Machines.**

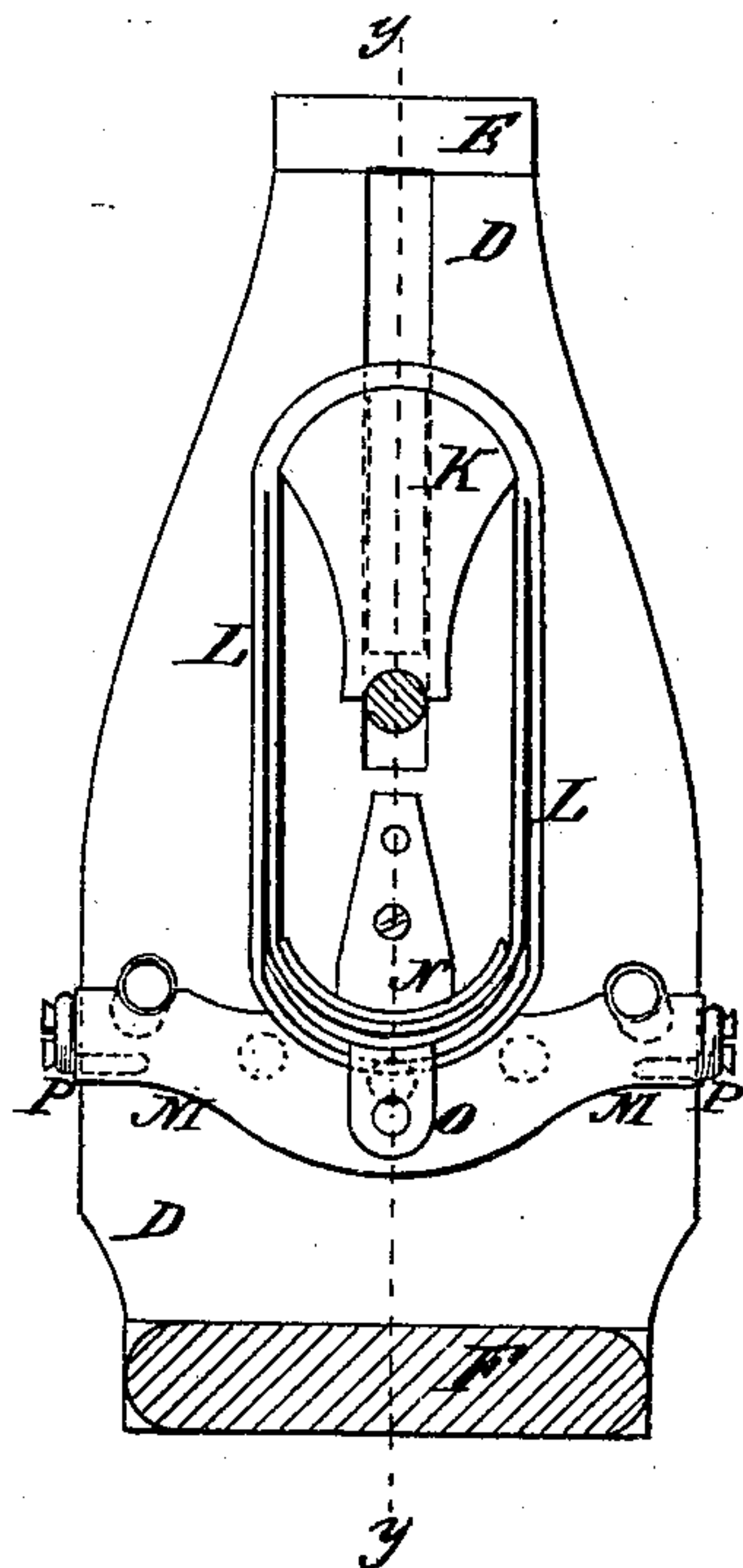
No. 145,799.

Patented Dec. 23, 1873.

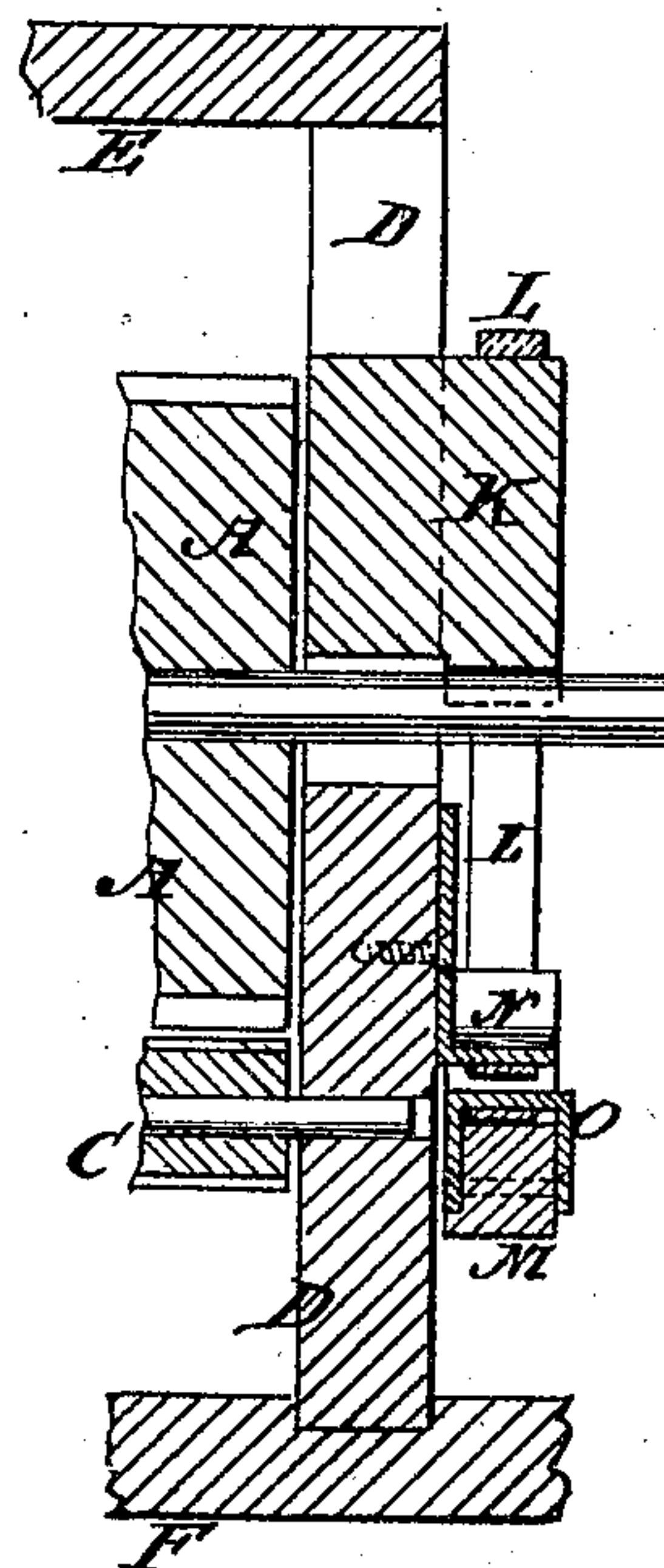
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



**Witnesses:**

*E. Wolff.*  
*Edgwick*

**Inventor:**

*M. L. Hawks*

**Per**

*mmf*

**Attorneys.**



# UNITED STATES PATENT OFFICE.

MOSES L. HAWKS, OF KINDERHOOK, MICHIGAN.

## IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 145,799, dated December 23, 1873; application filed September 20, 1873.

*To all whom it may concern:*

Be it known that I, MOSES L. HAWKS, of Kinderhook, in the county of Branch and State of Michigan, have invented a new and useful Improvement in Washing-Machine, of which the following is a specification:

Figure 1 is a side view of my improved washing-machine. Fig. 2 is an end view of the same, partly in section, through the line *x x*, Fig. 1. Fig. 3 is a detail longitudinal section of one end of the machine, taken through the line *y y*, Fig. 2.

Similar letters of reference indicate corresponding parts.

My invention has for its object to improve the construction of the washing-machine for which Letters Patent No. 140,625 were issued to me July 8, 1873, so as to make it more convenient in use, and more effective in operation. The invention consists in the connecting wires or rods, bent twice at right angles at the inner sides of the standards, and in the rubber bands, whole in their upper part and split in their lower part, and the stationary supports, in combination with the half-bearings of the upper roller, and the supports attached to the cross-bars that form the bearings for the two outer small rollers, as hereinafter fully described.

A is the large upper roller, to which the crank B is attached; C are the four small rollers; D are the slotted standards; E is the top bar; F is the base-bar; G is the large slotted cleat; H are the small notched cleats; I is the slotted cross-bar, and J is the locking-pin, about the construction of which parts there is nothing new. The journals of the large roller A are held down by the half-bearings K, which rest upon them, and slide up and down in the slots of the standards D. The half-bearings K project upon the outer sides of the standards D, and the tops of the projecting parts are rounded off to receive the rubber bands L. The journals of the two inner small rollers C revolve in bearings in the standards D. The journals of the two outer small rollers

C pass through short curved slots in the standards D, and revolve in bearings in the ends of the cross-bars M, which are placed upon the outer sides of the standards D. The upper parts of the rubber bands L are whole, but their lower parts are split, as shown in Fig. 2. The inner lower parts of the rubber bands L pass around curved supports N, attached to the standards D. The outer lower parts of the rubber bands L pass around supports O, attached to the middle part of the cross-bars M, as shown in Figs. 2 and 3. This construction allows the outer lower rollers to yield more readily as the clothes are entering and leaving the machine, and prevents the tendency to press the rollers out of position. The cross-bars M are connected and held in place against the outer sides of the standards D by the wires or rods P, the ends of which are attached to the ends of the said cross-bars M. The wires or rods P pass across the edges of the standards D, and, at the inner side of said standards, are bent twice at right angles, so as to pass beneath the outer small rollers, and thus be out of the way of the clothes.

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

1. The connecting wires or rods P, bent twice at right angles at the inner sides of the standards D, combined with said standards, and with the cross-bars M M, substantially as herein shown and described, and for the purpose set forth.

2. The rubber bands L, whole in their upper part, and split in their lower part, and the stationary supports N, in combination with the half-bearings K of the upper roller A, and the supports O, attached to the cross-bars M, that form the bearings for the two outer lower rollers C, substantially as herein shown and described.

MOSES L. HAWKS.

Witnesses:

WILLARD J. BOWEN,  
O. SCOTT CLARK.