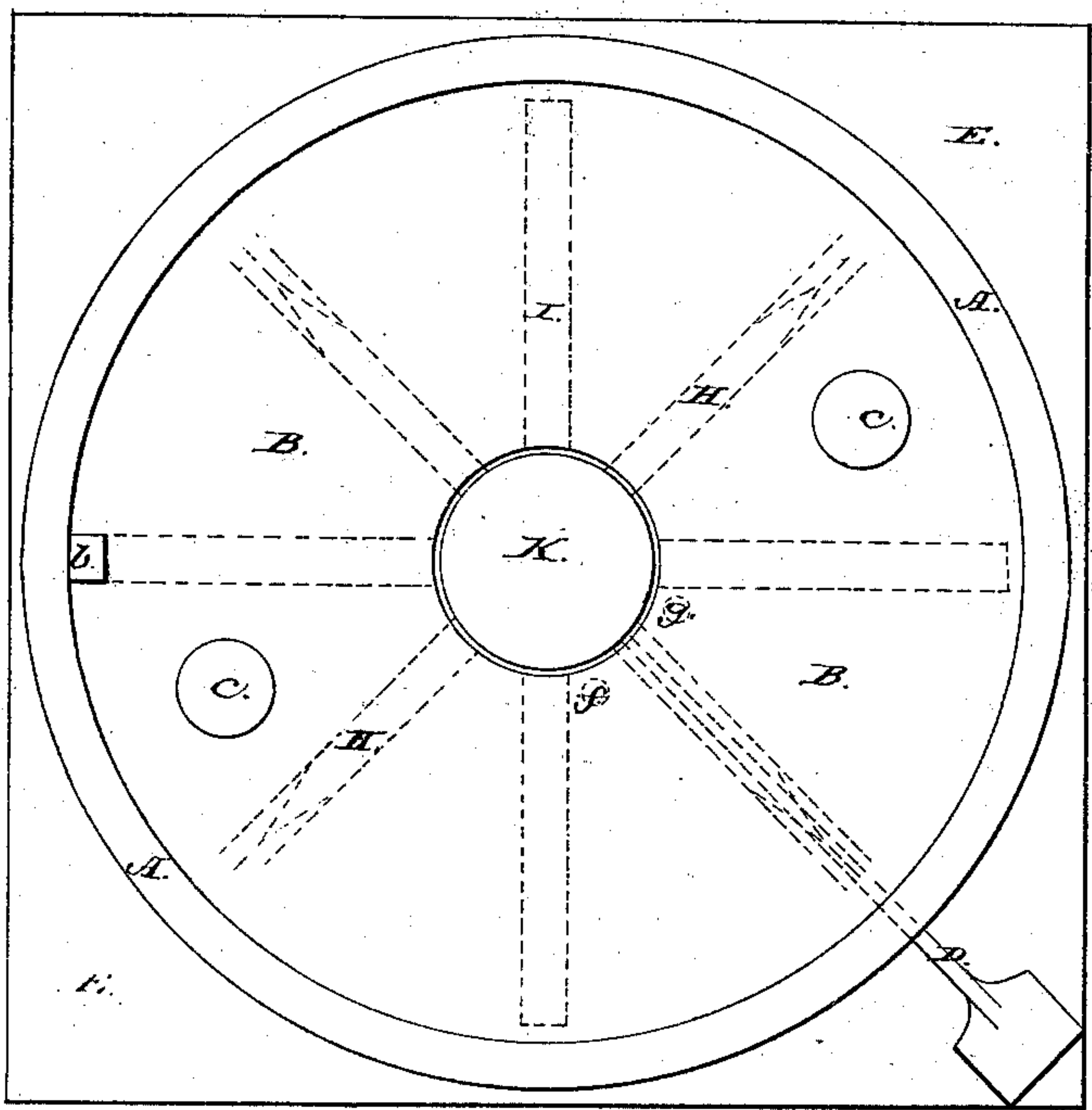
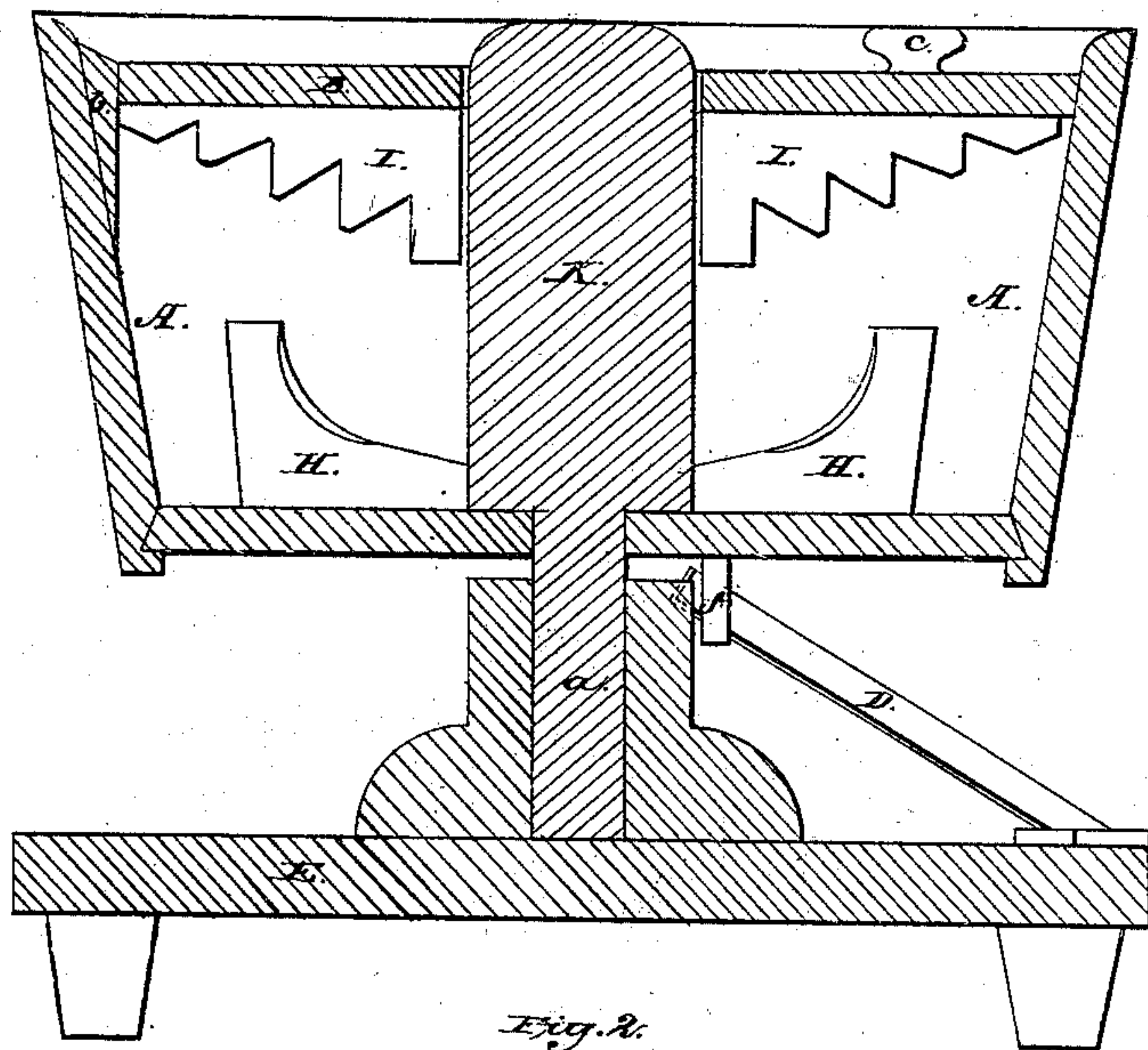


*M. S. Harsha,*  
*Washing Machine.*

*N<sup>o</sup> 33,146.*

*Fig. 1. Patented Aug. 27, 1861.*



*Attest:*

*Wm. S. Harsha*  
*William Jacobus*

*Inventor:*

*M. S. Harsha*  
*By his atty*  
*Amos Brooking*



# UNITED STATES PATENT OFFICE.

M. S. HARSHA, OF SYCAMORE, ILLINOIS.

## WASHING-MACHINE.

Specification of Letters Patent No. 33,146, dated August 27, 1861.

*To all whom it may concern:*

Be it known that I, M. S. HARSHA, of Sycamore, in the county of Dekalb and State of Illinois, have invented a new and  
5 useful Improvement in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawing, making a part of this specification,  
10 and to the letters of reference marked thereon.

The object of this invention is to wash and cleanse dirty clothes thoroughly, with the least possible expenditure of time and  
15 labor; and it consists in mounting a suitably fitted wash tub on a center on which it may be vibrated or partially rotated, and in providing it with pegs which strike a stationary spring. As the tub is vibrated  
20 to and fro the pegs or pins will alternately strike against the spring, the elasticity of which will contribute to the desired change of the motion, and facilitate the exercise of the force employed in the operation.

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

Figure 1 of the drawing represents an elevation of my improved washing machine in  
30 section, so that the internal parts may be seen; and Fig. 2 is a plan of the same.

A is a wash tub mounted on the central shaft *a*, and provided with a cover B, which has a slot in the periphery to fit over the  
35 projection *b* of the tub, to prevent the shifting of the cover without also moving the tub.

The tub is rotated, or vibrated, on its shaft by means of the handles *c* on the  
40 cover.

D is a spring secured to the base E of the machine, which stands on suitable legs,

and passing between the pins *f* and *g* placed on the bottom of the tub near the center. As the tub may be vibrated, the  
45 spring will be compressed in both directions by the alternate blows of the pins, and will facilitate by its elasticity the changing of the motion, and also utilize the power which has been thus employed and that  
50 would otherwise have been lost.

In the interior of the tub there are four brackets H placed on the bottom and extending partially up the sides. There are  
55 also brackets I on the cover. The object of all these brackets within the tub is to throw the clothes outward, and back and forth in accordance with the reciprocating movements of the tub; and to prevent their accumulation at the center. The middle of the  
60 tub is occupied by the standard K. In this connection I remark that the motion would not be communicated to the water and clothes within the tub unless the brackets  
65 were provided.

When this machine is used, it is vibrated back and forth by the handles *c*; the pins *f* and *g* alternately striking the spring D. The clothes accompany the reciprocating  
70 motion of the tub, and are subjected to the currents of soap and water occasioned by the brackets H and I.

I claim as my invention and desire to secure by Letters Patent—

The reciprocating spring D operating in  
75 the manner described and for the purpose specified. And I also claim the brackets H and I secured to the tub and its cover for the purpose of producing the necessary currents.

M. S. HARSHA.

Witnesses:

JOHN SWEENEY,  
W. A. LIGHTHALL.