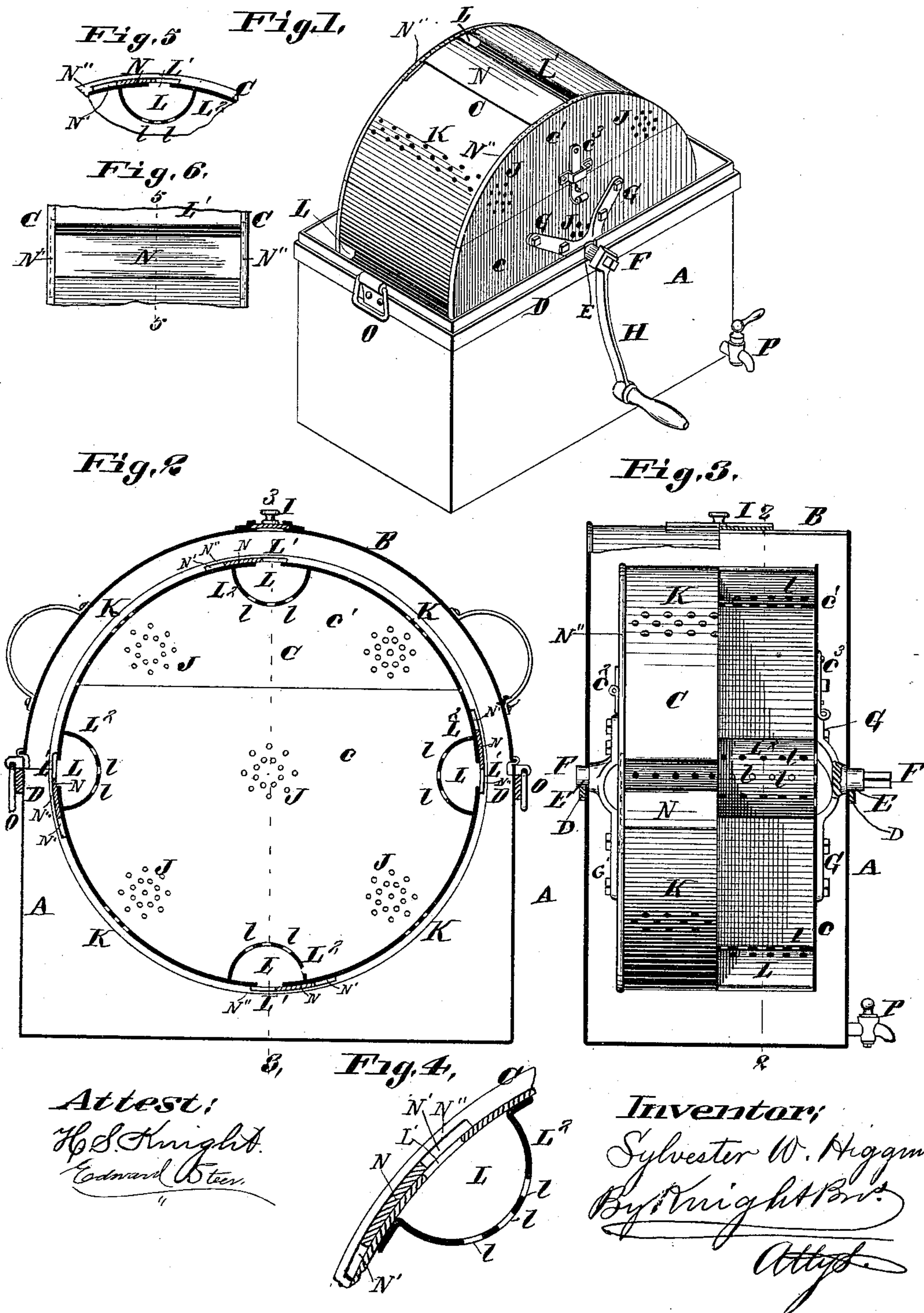


(No Model.)

S. W. HIGGINS.  
WASHING MACHINE.

No. 338,524.

Patented Mar. 23, 1886.





# UNITED STATES PATENT OFFICE.

SYLVESTER W. HIGGINS, OF ST. LOUIS, MISSOURI.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 338,524, dated March 23, 1886.

Application filed August 22, 1884. Serial No. 141,260. (No model.)

*To all whom it may concern:*

Be it known that I, SYLVESTER W. HIGGINS, of the city of St. Louis and State of Missouri, have invented a certain new and  
5 useful Improvement in Washing-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

10 This invention relates to the class of washers in which the clothes-cylinder revolves within a closed vessel containing hot water.

Reference is made to the claim for statement of invention.

15 Figure 1 is a perspective view of the machine, the cover of the outer vessel being omitted. Fig. 2 is a vertical longitudinal section at 2 2, Fig. 3. Fig. 3 is a vertical transverse section at 3 3, Fig. 2, showing one-  
20 half of the clothes-cylinder in elevation. Fig. 4 is an enlarged detail section at 2 2, Fig. 3. Fig. 5 is a section at 5 5, Fig. 6. Fig. 6 is a detail top view.

The outer vessel has a body, A, and a top  
25 or cover, B, fitting thereon with a somewhat close joint, so as to prevent the free escape of steam from the vessel. The body is shown of rectangular form, and the lid arched so as to be concentric with the clothes-cyl-  
30 der. These are, like the clothes-cylinder C, shown as made of sheet metal, which may be stiffened by doubling over at the edges, and by a rib, D, surrounding the vessel A near the top. The rib D serves to give stability  
35 to the bearings E of the gudgeons F of the clothes-cylinder. The gudgeons are secured to the ends of the clothes-cylinder by star-irons G and rivets or bolts. To one of the gudgeons is fitted a hand-crank, H, by which  
40 the clothes-cylinder is turned. The top B of the outer vessel has a sliding valve, I, by which the heated vapor may be allowed to escape. The clothes-cylinder C has a body, c, to which the gudgeons are secured, and a lid  
45 or cover, c', fitted to the same with hinges c<sup>2</sup> and a spring-catch, c<sup>3</sup>, upon opposite sides or ends of the lid. The ends of the cylinder have holes J, for the passage of water and steam, and the periphery of the cylinder has  
50 holes K for the same purpose.

The chief provision for the entrance of water into the cylinder consists in pockets L, which are within the periphery, having narrow mouths L' extending from end to end of the cylinder. The inner walls of the pocket 55 consist of curved plates L<sup>2</sup>, whose edges are soldered or otherwise secured to the periphery of the cylinder at a little distance from edges of the mouths L', so as to form a trough at both sides of the mouths, which trough 60 carries up a quantity of water as the cylinder is turned, said water running through the holes l in the inner side of the pocket as it is elevated and falling upon the clothes.

It will be seen that the holes l are not any 65 of them made near the edges of the plate L<sup>2</sup>, where it is connected to the periphery of the cylinder, so that as the pocket is elevated the water is much of it carried up to the apex of the cylinder. 70

N are sliding plates or valves on the periphery of the cylinder, by which the widths of the mouths L' may be regulated to regulate the quantity of water entering the pockets. These plates slide in grooves or bearings N' 75 in the flanges N'', at the ends of the cylinder. The plates N give means for increasing the depth of the water-pocket upon either side. (See Figs. 5 and 6.)

O are handles by which the machine may 80 be carried.

P is a cock through which the liquid contents may be discharged from the machine.

Where the cylinder C is turned in only one direction the trough need be made on one side 85 of the pocket only, and this would be essentially the same in principle as if constructed with the trough on opposite sides.

I claim—

A revolving clothes-cylinder formed with 90 mouths L' and pockets L within the cylinder, flanges N'', having grooves N', and the slides N, adjustable over the mouths for regulating the width of the latter, substantially as set forth.

SYLVESTER W. HIGGINS.

Witnesses:

SAML. KNIGHT,  
GEO. H. KNIGHT.