(No Model.)

L. CLINE.

WASHING MACHINE.

No. 318,234. Patented May 19, 1885.

Fig. 1.

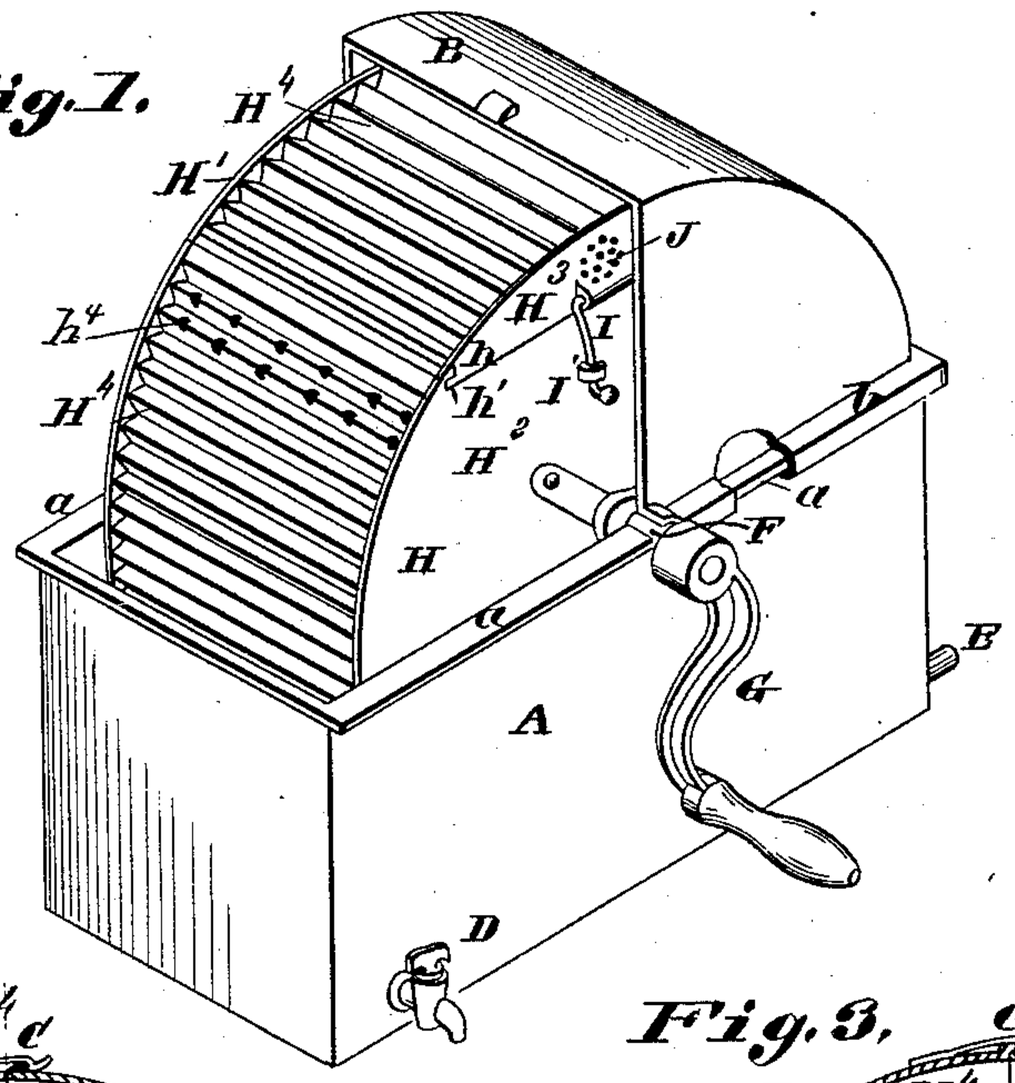


Fig. 2.

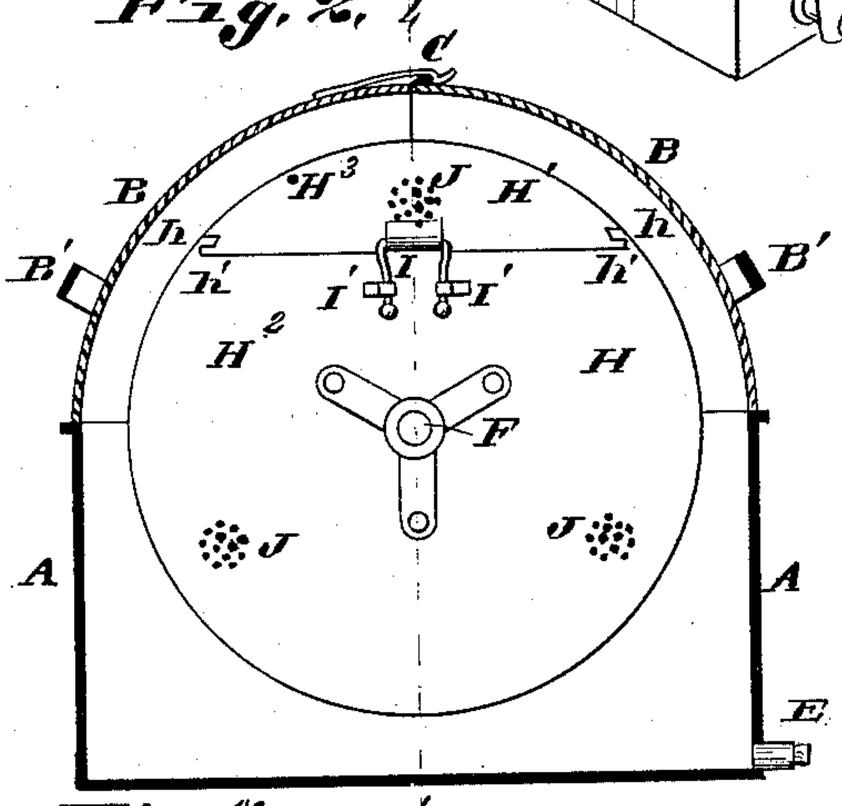


Fig. 3.

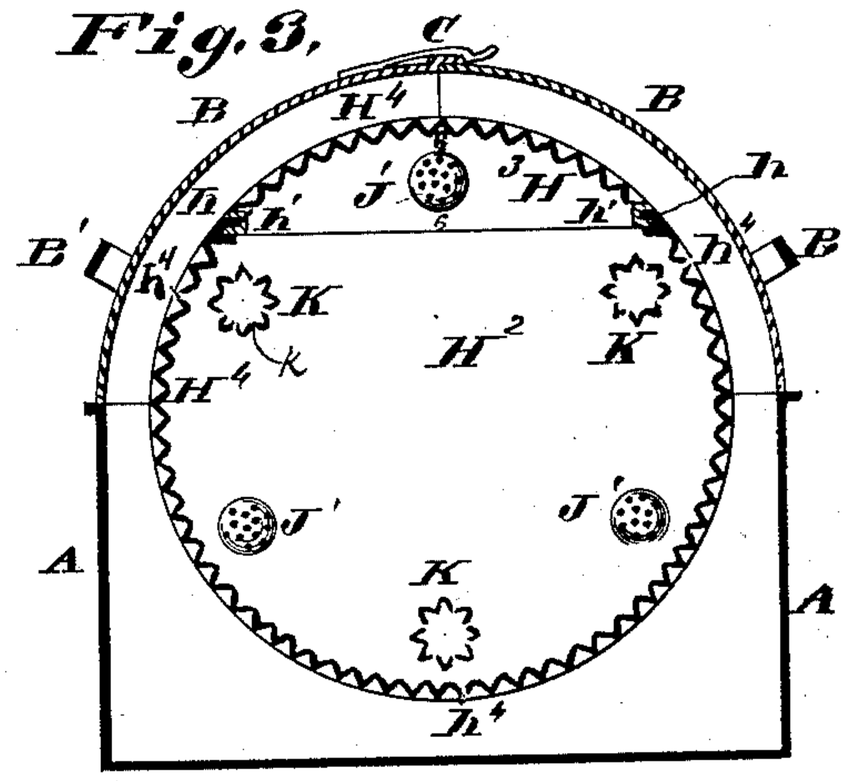


Fig. 5.

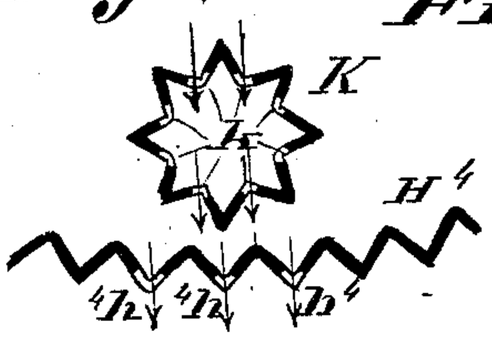


Fig. 4.

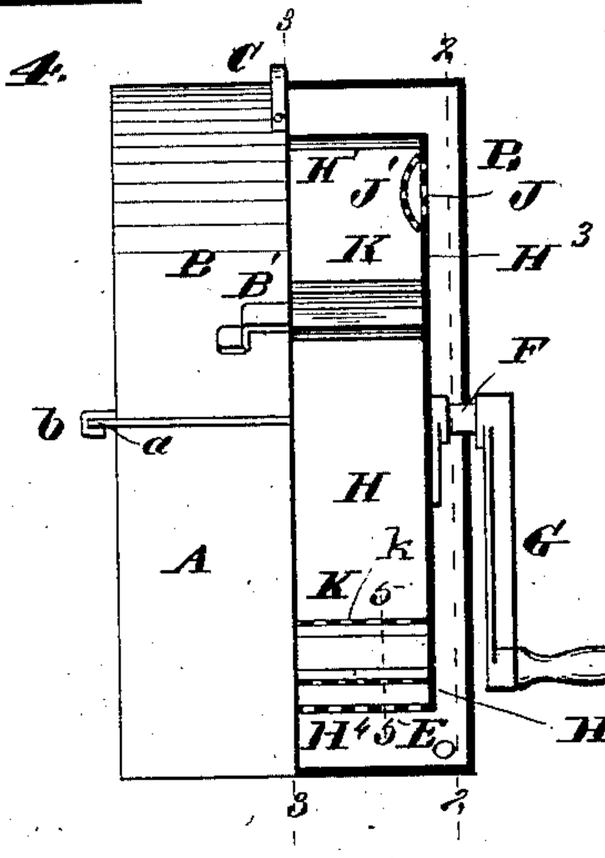
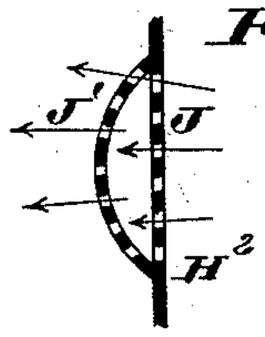


Fig. 6.



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UNITED STATES PATENT OFFICE.

LEON CLINE, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO AMEDEE VALLEE, OF SAME PLACE.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 318,234, dated May 19, 1885.

Application filed February 23, 1884. (No model.)

To all whom it may concern:

Be it known that I, LEON CLINE, of the city of St. Louis, in the State of Missouri, have invented a certain new and 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.

This invention relates to the class of washing-machines in which the clothes are contained in a cylinder that is revolved in a vessel containing hot water.

Reference is made to the claims for detailed statement of the invention.

Figure 1 is a perspective view of the machine with one section of the cover removed and part broken out of the other section, to show the manner of connecting the sectional cover to the body of the boiler. Fig. 2 is a vertical section at 2 2, Fig. 4. Fig. 3 is a vertical section at 3 3, Fig. 4. Fig. 4 is one half in end view and the other half in vertical section at 4 4, Fig. 2. Fig. 5 is an enlarged detail section at 5 5, Fig. 4. Fig. 6 is an enlarged section at 6 6, Fig. 3, showing one of the guarded openings in the end of the cylinder.

A is the body of the boiler, having at the upper edge side flanges, *a*, that are embraced by outturned, downturned, and inturned edges *b* of the cover-sections B B, the construction being such that the cover-sections are slid onto the body from each end and meet at the middle, where they are connected by a spring-catch, C, consisting of a spring-claw that engages a projection of the other section. The boiler has a discharge-cock, D, through which the water may be allowed to escape after use. The boiler may be set upon a heated surface—as the top of a cook-stove—or the water therein may be heated by a steam-pipe entering the boiler at tube E. The cylinder in which the clothes are placed is supported on gudgeons F, attached to its ends, and having bearings on the upper edge of the boiler-body A. To one of the gudgeons is connected a crank or winch, G, by which the cylinder is turned. The cylinder consists of a body, H, and lid H′, connected by interlocking lips *h* and *h′*, the lid sliding onto the body endwise. The endwise movement of the lid is prevented, when it is in position, by an expanding spring-catch, I, that is secured to the lid, and whose legs engage in catches I′ of the body. The ends H^2 H^3 of both body and lid may be flat, as shown, while the periphery H^4 in both the body and lid parts is made of corrugated metal, as shown, so as to rub the clothes contained in the cylinder when the latter is revolved. The ends of the cylinder have small perforations in series at J, to allow the water within the cylinder communication with that outside, (in the boiler.) I prefer to cover the series of perforations with a concavo-convex perforated plate, J′, upon the inside.

At K are corrugated tubes extending from end to end of the cylinder upon the inside. The ends of the tubes are soldered fast to the ends of the cylinder, so as to form braces, and the ends of the tubes are closed by the ends of the cylinder. The ribs and grooves of the tubes K extend from end to end. Said tubes have perforations *k* at the inner angles, to allow the water to pass transversely through the tubes. In the periphery of the cylinder the ribs and grooves extend from end to end, (in the same direction as in the tubes K.) The parts of the periphery opposite to the tubes K have perforations at the outer angles, h^4, to allow the outward passage of water at these parts resulting from centrifugal force, the water to supply the cylinder entering through the apertures at J J′. The clothes are washed by placing them in the cylinder and rotating it in the hot suds in the boiler, the clothes, of course, not occupying the whole space, but being free to move therein. When a batch of clothes has been washed, the catch C is loosened and the lid-sections B drawn outward by the handles B′, so as to expose the top of the cylinder. The lid of the cylinder is then brought to the top, as shown in the drawings. The clasp or catch is then sprung in to disengage it from the lug-catches I′, and the lid of the cylinder is slid endwise from the body of the cylinder.

It will be observed that in the removal of the lids from the boiler and cylinder the hands of the operator are not liable to be scalded by steam, as the openings are not near to them.

I do not claim, broadly, in this application

a sliding lid to the cylinder, as such a lid is claimed in my application filed August 19, 1884, No. 140,950.

I claim as my invention—

1. The rotary cylinder comprising body H, having lid H′, and the tubes K, extending from end to end of the cylinder, the periphery H^4 of the body and lid being formed of corrugated metal having perforations at the outer angles, h^4, opposite the tubes, and the tubes being formed of corrugated metal having perforations k at their inner angles, as set forth.

2. A rotary cylinder comprising the body H and the lid H′, the body and lid being provided with perforated corrugated tubes K, extending from end to end thereof, flat ends H^2 H^3, having series of perforations J, convex perforated plates covering the series of perforations, and a corrugated periphery having perforations h^4, as set forth.

LEON CLINE.

Witnesses:
SAML. KNIGHT,
GEO. H. KNIGHT.