P. Lutes,

Washing Machine,

No. 53,844. Patented Apr. 10, 1866.

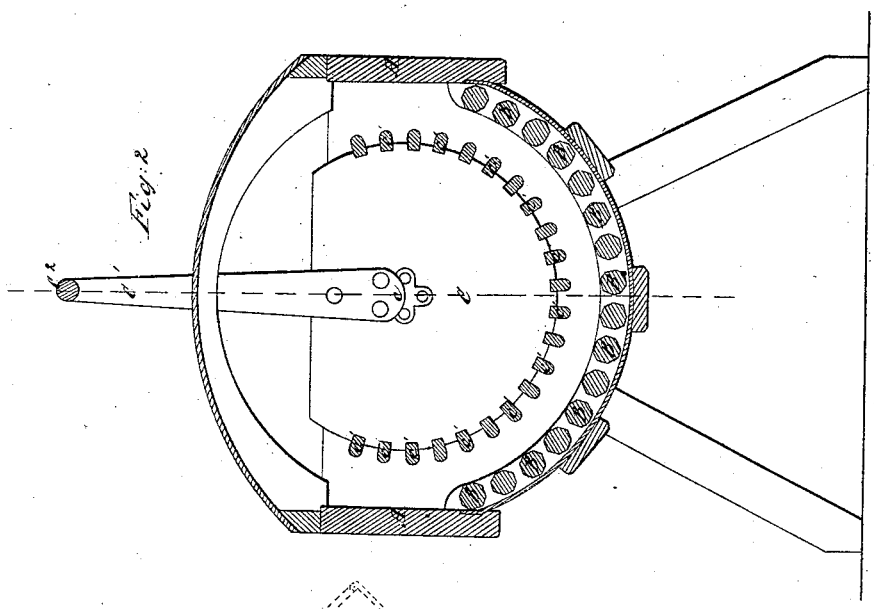

Fig. 2

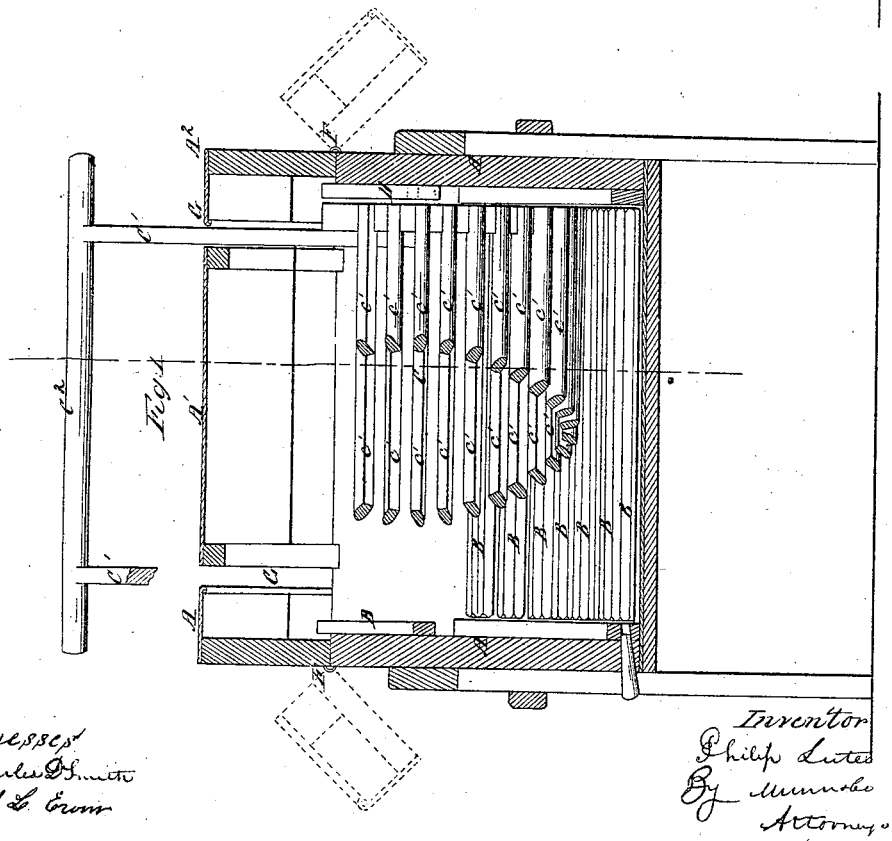

Fig. 1

Witnesses:
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UNITED STATES PATENT OFFICE.

PHILIP LUTES, OF PLATTE CITY, MISSOURI.

WASHING-MACHINE.

Specification forming part of Letters Patent No. **53,844**, dated April 10, 1866.

To all whom it may concern:

Be it known that I, PHILIP LUTES, of Platte City, in the county of Platte and State of Missouri, have invented a new and useful Improvement in Washing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which make part of this specification, and in which—

Figure 1 is a section of a washing-machine, taken longitudinally through the oblong tub, said machine embodying my improvements. Fig. 2 is a transverse sectional view.

Similar letters of reference indicate corresponding parts in the several figures.

To enable others skilled in the art to which my invention appertains to fully understand and use the same, I will proceed to describe its nature, construction, and operation in the order in which they are mentioned.

My said invention consists, first, in the combination of a semi-cylindrical or approximately shaped vibrating rubber, formed of slats fixed stationarily in a frame, with a series of rollers arranged in the bottom of a concave tub in parallel positions, but with their axes in the arc of a circle; and the invention further consists in a method of constructing the upper portion of the machine to adapt the latter to admit of the vibratory movement of the arms which project out of the tub, prevent the water from splashing out, and provide a ready means of opening the tub for access to its inside.

In the annexed drawings, A represents an oblong tub, the upper and lower portions of which may be segmental or semicircular in their transverse section, while the intervening middle portion of the tub is flat—that is to say, the sides are straight. The lower portion of the tub may be composed of zinc, to give strength at the point where the friction is sustained.

B B B are a series of rollers, arranged each in equal proximity with the inner surface of of the zinc bottom, and hence occupying a part of a circle which may be described from the axis of vibration *c* of the rubber C. The rollers B are provided with journals on their ends, which have bearings in the ends of the tub A, so that the rollers may rotate freely on their axes; but the slats *c'* of the vibratory rubber C are fixed. They have no movement other than that which is due to the oscillation of the rubber. The said rubber C is suspended within the tub upon the stud-shafts *c*, which project from the end pieces of the rubber, and when the latter is in the tub in operating position they rest in bearings formed by the curved **U**-shaped pieces D, which may be fixed permanently to the inside of the end pieces of the tub. These bearings D, opening upward, admit of the ready removal and introduction of the rubber C.

Two arms, C' C', are attached to the rubber C, and are connected at their upper ends by the handle C^2, by means of which the rubber is vibrated within the tub.

The cover or top portion of the tub consists of three parts, A' A^2 A^2. The larger and central part, A', fits in between the two arms C' C', which form part of the rubbing device, and the side edges of the cover are adapted to fit or rest snugly in grooves formed longitudinally on the straight sides of the tub. The horizontal curved portion of the end pieces, A^2 A^2, cover so much of the tub as is left uncovered by the lid A', and by their vertical portions said end pieces, A^2 A^2, are attached to the tub by hinges F F. By taking off the piece A' and turning the end pieces, A^2 A^2, aside upon their hinges, the cover of the tub is removed to permit the removal of the rubber C.

Between the end pieces, A^2, and piece or lid A' are openings G G, in which the arms C' of the rubber C move back and forth during the operation.

The operation may be briefly described, as follows: The machine is first opened by removing the cover in the manner described, and the rubber is taken out. Then the clothes or garments to be washed are laid upon the rollers B, the rubber is introduced, and the cover replaced, water having been supplied as usual. By now vibrating the rubber C by forcing the handle C^2 back and forth the clothes are subjected to the necessary rubbing and scouring action to insure the rapid and thorough cleansing.

The machine is not of complicated construction and may be manufactured with comparatively little expense.

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

1. The structure of the upper portion of the washing-machine, consisting of the central piece or lid, A′, and the hinged end pieces, A^2 A^2, with the intervening spaces or openings, G G, as set forth.

2. The combination and arrangement of the concave tub A, rollers B, rubber C *c*′, arms C′ C′, handle C^2, bearings D, central piece or lid, A′, hinged end pieces, A^2 A^2, and intervening spaces or openings, G G, the whole being constructed and operating substantially as and for the purposes described.

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Witnesses:
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