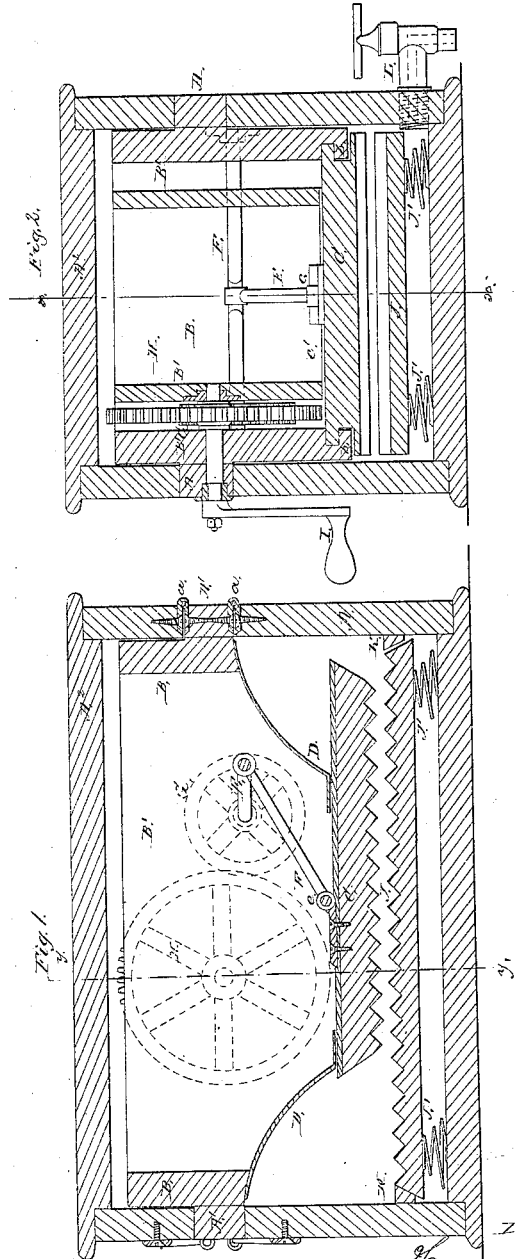


H. Rice,

Washing Machine,

N^o 45,122.

Patented Nov. 15, 1864.



Witnesses,
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UNITED STATES PATENT OFFICE.

HERMAN RICE, OF YOUNGSTOWN, OHIO, ASSIGNOR TO HIMSELF AND MORITZ FLEISCHMAN, OF SAME PLACE.

IMPROVED WASHING-MACHINE.

Specification forming part of Letters Patent No. **45,122**, dated November 15, 1864; antedated October 30, 1864.

To all whom it may concern:

Be it known that I, HERMAN RICE, of Youngstown, in the county of Mahoning and State of Ohio, have invented a new and Improved Washing-Machine; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 represents a vertical longitudinal section of my invention in the line *x x*, Fig. 2. Fig. 2 is a transverse section of the same in the line *y y*, Fig. 1.

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

This invention consists in a certain combination and arrangement of a reciprocating and a yielding rubber, placed within a rectangular tub and operating in connection with suitable gearing and a crank, whereby the clothes placed between the said rubbers may be rubbed, turned, squeezed, and thoroughly cleansed with great celerity without injury by friction.

In order that others skilled in the art to which my invention appertains may be enabled to fully understand and use the same, I will proceed to describe its construction and operation.

In the accompanying drawings, A may represent an oblong rectangular tub or vessel, A² a lid, and A' an intervening section, which are hinged together at *a a*. To the section A' is attached an interior box, B, which fits snugly within the tub A, and is adapted to be turned or thrown back with the section A', for the purpose to be explained.

C is a rubber moving longitudinally in guideways, as shown at *b b*, Fig. 2. These guideways are formed near the lower edges of the side pieces of the interior box B, the under portion of which is so formed that the ends thereof will constitute guides D D, for preserving clothes from the injury which would be consequent upon their getting upon the top of the rubber C and being drawn between the same and the bottom of the box B while the machine is in operation.

E represents a transverse crank passing through and journaled in suitable boxes in the

sides B' B' of the box B. To this crank is attached a pitman or arm, F, which is hinged or pivoted at its opposite end to the upper side of the rubber C, as shown at *c*. On one end of the crank E, and in one of the spaces between the partitions B' B', is secured a pinion, G, through which rotation may be imparted to the crank and a reciprocating motion to the rubber C by means of a gear-wheel, H, and hand-crank, I.

J represents a yielding corrugated rubber, resting upon spiral-springs, J', which are fastened to the bottom of the tub A, said rubber extending the entire length of the tub in parallel position with the rubber C. This rubber J is held out of contact with the rubber C by beveled checks K K, the ends of the rubber J being beveled in a corresponding manner, as shown in Fig. 1. Water may pass between the ends of rubber J and the checks K K, and be drawn off, after having been used, by the faucet L.

It is designed to introduce water into the box B, from whence it may flow to the washing-apartment proper through spaces *c'*.

Operation: The upper section or lid A and box B being turned or thrown back, the pieces to be washed are placed upon the rubber J, when the box D is turned down, thus compressing the clothes between the rubbers. Water is then poured into the box D, from which it flows through the spaces *c'* to the apartment below. It will readily be perceived that by rotating the crank-handle I the clothes will undergo a speedy and most effectual cleaning operation, being continually shifted from place to place, rubbed, and by the constant pressure of the rubber B thoroughly rinsed.

It will be impossible for any of the pieces of clothing to escape the action of the rubbers, as at each reciprocation of the rubber C any clothes which may have gotten upon the upper side thereof will be removed by the guides D and fall between the rubbers. The spaces at the respective ends of the box B allow room for displaced water.

The gearing may be arranged or so modified that little difficulty will be experienced in operating the machine by hand. When the

clothes are to be washed on a very extensive scale, the crank E may be rotated, and consequently the rubber C reciprocated by any suitable connection with a steam-engine.

It may be remarked that any desirable number of springs may be employed, and also that, instead of the water being conducted to the washing apartment through the spaces between the rubber C and box B, the said rubber may, if preferred, be perforated for this purpose.

I do not limit myself to the manner described of preventing the contact of the rubbers, but propose to effect this in any other way which experience may prove to be preferable.

Having thus described my invention, the

following is what I claim as new therein and desire to secure by Letters Patent:

1. The combination of the hinged cover or lid A², section A', and tub A with the interior box B, adapted to be turned back with the section A' for admitting of the insertion of clothes between the rubbers C and J, as set forth.

2. In combination with the above parts, the guides D D, constructed and employed substantially as and for the purpose explained.

The above specification of my improved washing-machine signed this 16th day of September, 1863.

Witnesses: HERMAN RICE.

JACOB SPERGE,

GEORGE MCKEE.