

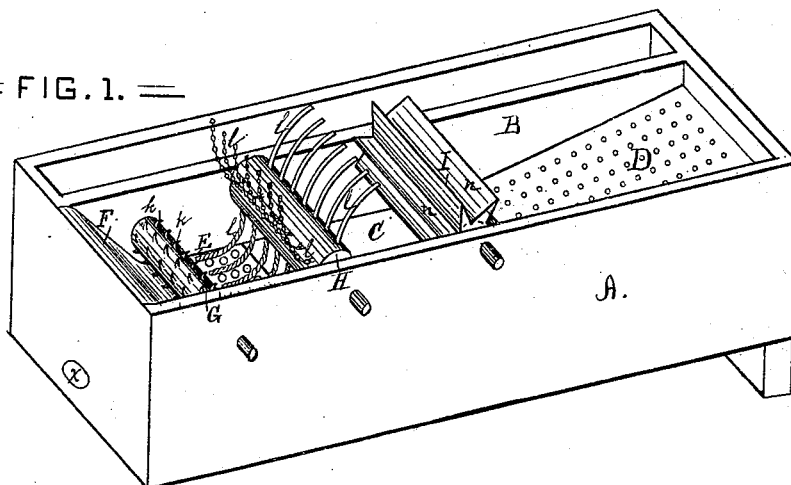
G. D. LUCE.

WASHING-MACHINE.

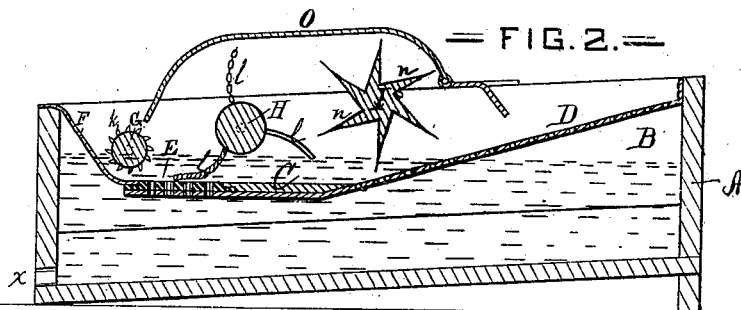
No. 188,524.

Patented March 20, 1877.

== FIG. 1. ==



== FIG. 2. ==



WITNESSES.

*J. H. Hubbell*  
*J. J. Roach.*

INVENTOR.

*George S. Luce*

BY

*H. N. Jenkins*

ATTORNEY.

# UNITED STATES PATENT OFFICE.

GEORGE D. LUCE, OF NEW ORLEANS, LOUISIANA.

## IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 188,524, dated March 20, 1877; application filed January 8, 1877.

*To all whom it may concern:*

Be it known that I, GEORGE D. LUCE, a resident of the city of New Orleans and State of Louisiana, have invented a certain new and useful Improvement in Washing-Machines; and I do hereby declare the following to be a full, clear, and correct description of the same, reference being had to the annexed drawing, making a part of this specification.

This invention relates more especially to that class of washing machines which are applicable to the cleaning of fibrous substances.

In order that its construction and operation may be clearly understood, attention is called to the annexed drawing, on which Figure 1 represents a perspective view of my invention, and Fig. 2 a longitudinal section of the same.

A is a slightly-inclined rectangular box, which is provided at a certain distance from one of its sides with a semi-partition or bearing-strip, B, the depth of which should be somewhat less than that of the box, in order that the spaces on either side thereof may communicate with one another, and thereby afford a means for cleaning the machine without necessitating the removal of either the fixed or working parts of the same. One of the above spaces is furnished, for a limited distance, with a horizontal false bottom, C, the rear of which connects with the forward end of a perforated incline-plate, D, and the front with a perforated rubber or other equivalent deadening or non-sounding plate, E, the front of which is attached to the lower end of a declining feed-plate, F. Above the parts just mentioned, and in the same compartment therewith, are fitted three drums, G, H, and I, the journals of which operate in the bearing-plate B and in one side of the box, as shown.

The forward or feed drum G is furnished with numerous inclined teeth, K, and the second drum H with several rows of flexible beaters, *l*, while the rear drum I is provided with paddles, as at *n*, for purposes which will hereinafter be described.

O is a hinged cover, which is designed to be closed down over the working parts of the machine when in operation.

Before starting the machine water is poured into the box until it reaches a height sufficient to cover the false bottom thereof. The material to be cleaned is then placed on the feed-

plate F and permitted to slide down to the first or feed roller G, by the teeth of which it is drawn inward to the perforated plate E, where it is subjected to repeated blows from the flexible beaters *l*, which, as they rapidly revolve, turn and gradually draw forward the material, thus constantly presenting new surfaces to be acted upon. Finally, by reason of a current created by the paddle-drum I, the water and fibrous material are thrown outward upon the rear plate D, through the perforations of which the water is, by force of head, conveyed back into the box and along the bottom of the same, from whence it rises again through the perforations in the plate E, and the material thereupon, as the latter is being subjected to the action of the beaters.

The fibrous material, as it is removed from the rear plate, is conveyed off to be thoroughly dried, when it is ready for the market.

From the above description it will be perceived that the action of the water-current will have a tendency to draw the foreign matter which is released from the fiber to the bottom of the forward end of the box, from whence it is withdrawn, when necessary, through an opening, *x*, which is provided with a watertight removable cover or with a faucet, as may be most desirable.

The power employed for operating the machine may be applied to either of the shafts, and communicated to the others either by belt and pulleys or by gearing, as found most convenient.

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

1. The combination, with the perforated bottom of a washing-machine, of a revolving shaft or drum, H, the latter provided with a series of flexible beaters, *l*, for the purpose set forth.

2. The combination, with the box A, provided with false bottom O and cover O, of a feed-roller, G, revolving beaters *l*, and paddle-wheel I, as described, and for the purpose set forth.

Witness my hand.

GEORGE D. LUCE.

In presence of—

J. C. HUBBELL,  
T. J. ROACH.