M. Gardner, Sr.,

Washing Machine.

No. 51,444. Patented Dec 12, 1865.

Fig. 2.

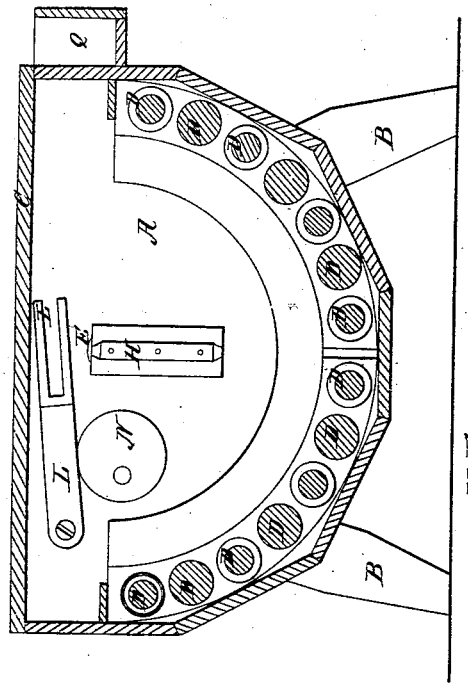


Fig. 4.

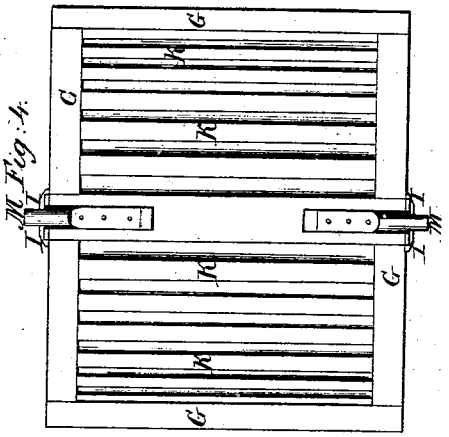


Fig. 1.

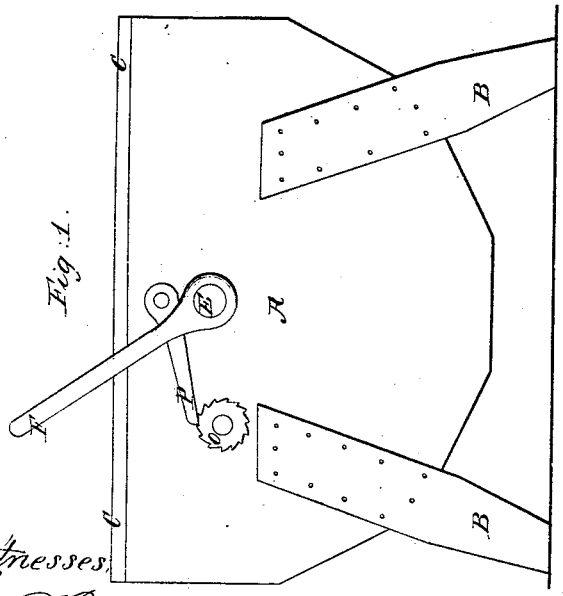
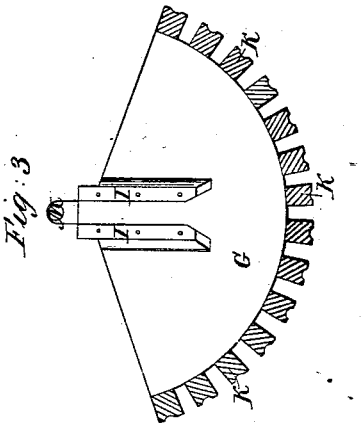


Fig. 3



Witnesses.
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Inventor;
Martin Gardner Sr.
Per A. B. Stoughton Atty.

UNITED STATES PATENT OFFICE.

MARTIN GARDNER, SR., OF CARLISLE, PENNSYLVANIA.

WASHING-MACHINE.

Specification forming part of Letters Patent No. **51,444**, dated December 12, 1865.

To all whom it may concern:

Be it known that I, MARTIN GARDNER, Sr., of Carlisle, in the county of Cumberland and State of Pennsylvania, have invented certain new and useful Improvements in Machines for Washing Clothes; 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, making a part of this specification, in which—

Figure 1 represents an elevation from one of the sides of the machine. Fig. 2 represents a vertical longitudinal section through the same, with the rubbing-board omitted to show the parts otherwise concealed by it. Fig. 3 represents a section through the rubber. Fig. 4 represents a top plan of the rubber.

Similar letters of reference, where they occur in the separate figures, denote like parts in all the drawings.

My invention consists in passing short shafts through the sides of the box, which have guides fastened to them on the inside of the box, and which guides receive and retain the rubbing-segment, and allow it to rise and fall while it is operated from the outside by a lever or other equivalent device; and it further consists in restraining the descent of the rubbing-segment by means of arms resting upon adjustable eccentrics, while said segment is free to rise in yielding to the variable thickness of the clothes underneath it.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

A represents a washing-box, supported by legs B and furnished with a tight lid, G, hinged or otherwise, so as to gain ready access to the interior. In the inside of the box I arrange in a semicircular form a series of beaded rollers, D, so set as that the swells on one roll shall fit into the recesses of the next adjacent roll, the different diameters thus working in juxtaposition, with, of course, different velocities, causing a rubbing operation, and serving to spread out the clothes and prevent their rolling up into masses.

Through the sides of the box, and opposite to each other, are introduced through sleeves or packing-boxes, so as to prevent the water from passing out, short shafts E, one of which may be furnished with a lever or handle, F, for operating it, and the rubbing-section G, which is connected to said shafts. To the inner ends of these shafts, inside of the wash-box, are fastened guides or ways H, over which the rubbing-section is set, and upon which it may rise and fall by means of its guides or slats I I, which form a groove to receive the guides H. These guides or ways also serve as the medium of the shaft-connection with the rubbing segment or section G, so that the latter may be vibrated by means of the lever F, the segment itself thus becoming a part of the shaft, as it connects with and is moved by them. While the segment G is thus operated by the lever on one of the short shafts, it can rise to accommodate itself to the thickness of the clothes under it; but to prevent it from dropping so low as that its slats K should come in contact with the rolls D, and thus possibly injure the clothes, I regulate the extent of its downward motion, while its upward motion remains unchecked, by means of bearers L on the inside of the box, that receive the journals or arms M on the rubbing-section G. These arms or bearers L are adjusted by means of eccentrics N on the inside of the box, which eccentrics may be turned and held at the properly-adjusted position by ratchet-wheels O on the outside of the box, controlled and held when adjusted by the dogs or pawls P. Thus the rubbing-segment may be set to work nearer to or farther from the rollers D, as the nature, quality, or quantity of the material to be washed may demand.

While the rubbing-segment G is thus united to the shafts and controlled in its descent by the bearers L, it is free to be lifted out of the wash-box without detaching or loosening anything, the bearers swinging up and outward with it. Thus the clothes may be put in or taken out quite readily.

Q is a soap-box at one end of the machine.

One of the main advantages of this manner of connecting the rubbing-segment with and operating it by the shafts passing through the sides of the wash-box is that the lid and box may be tight and without openings, and thus preserve the temperature of the hot water for a longer period.

Having thus fully described my invention, what I claim is—

1. The short shafts and their guides, connected and combined with the rubbing-seg-

ment and its ways, so that the segment may be operated from the outside of the box and be free to rise and fall with the inequality of the clothes being washed, substantially as described.

2. The adjusting or regulating of the extent of the descent of the rubbing-segment, while it remains free to rise above that limit, by means of the hinged bearers, eccentrics, and turning and holding ratchet and dog, substantially as described.

MARTIN GARDNER, SEN.

Witnesses:
JOHN MARTIN,
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