G. S. WALKER & F. F. ADAMS.

Improvement in Washing-Machines.

No. 127,204. Patented May 28, 1872.

Fig. 1

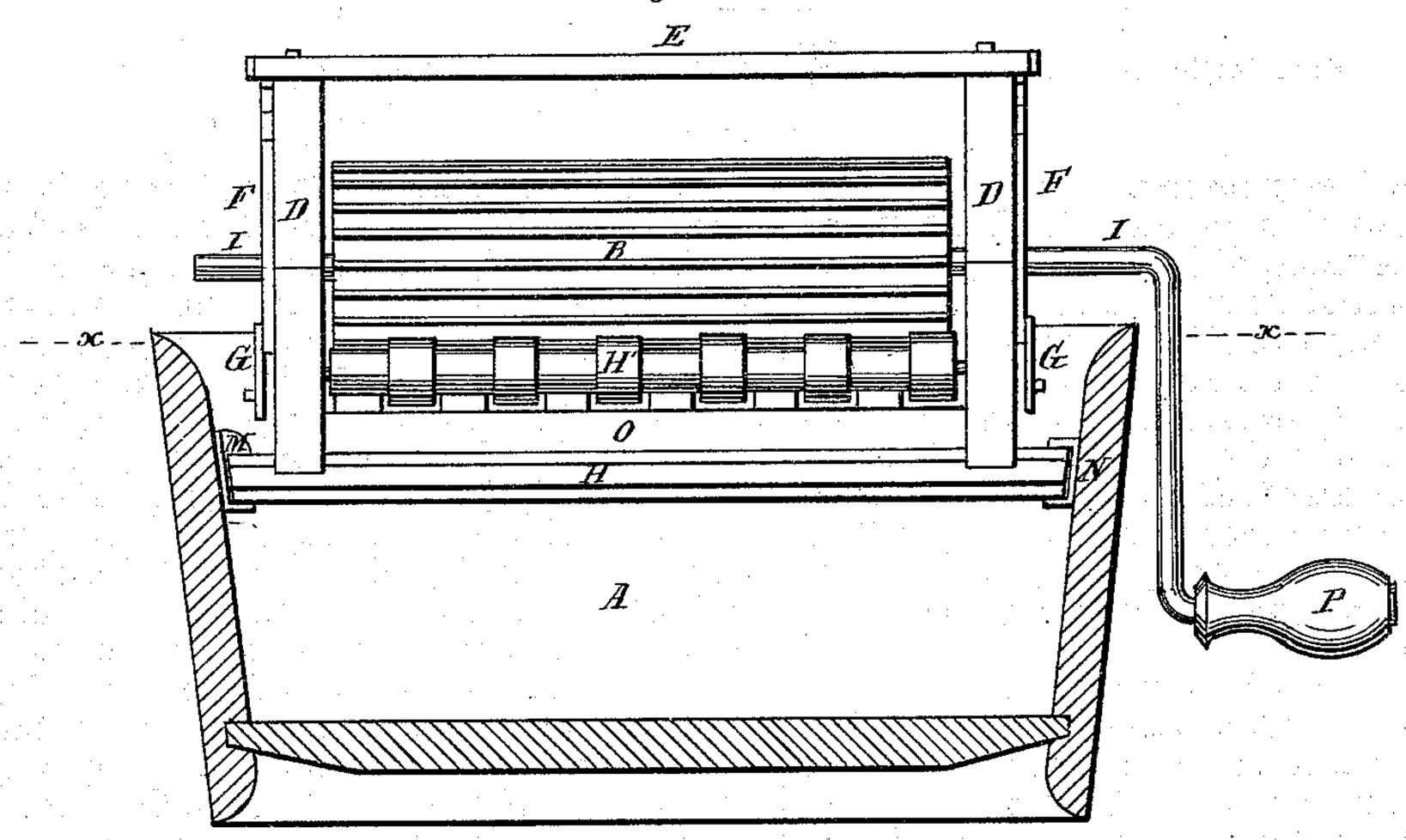

Fig. 2

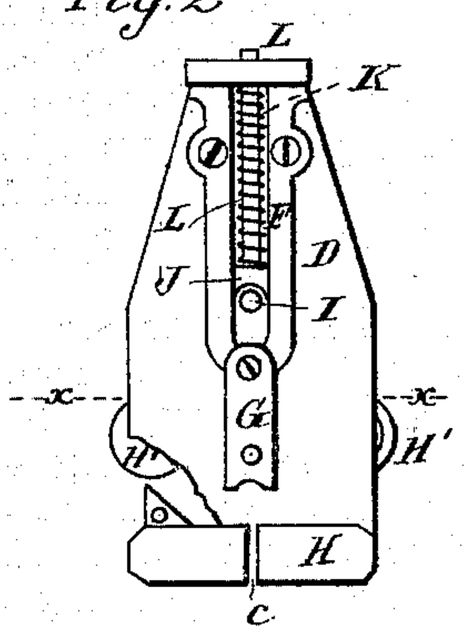

Fig. 3

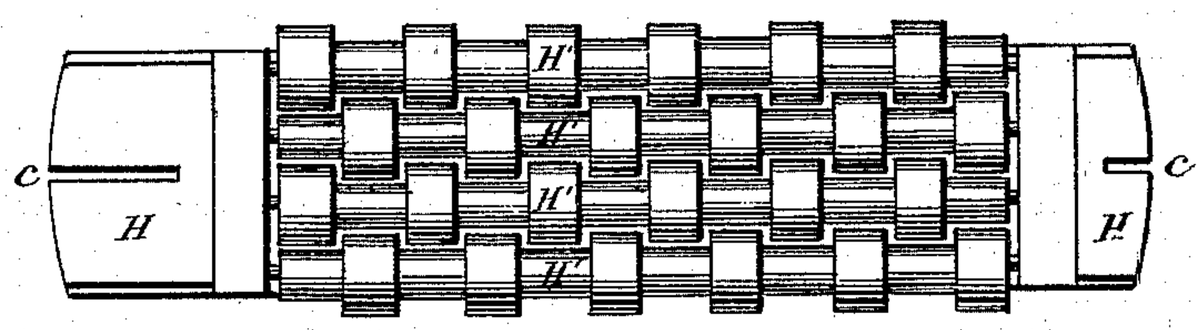

Fig. 4

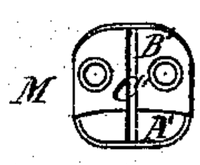

Fig. 5

Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE S. WALKER AND FRANK F. ADAMS, OF ERIE, PENNSYLVANIA; SAID WALKER ASSIGNOR TO SAID ADAMS.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 127,204, dated May 28, 1872.

To all whom it may concern:

Be it known that we, GEO. S. WALKER and FRANK F. ADAMS, of Erie, in the county of Erie and State of Pennsylvania, have invented a new and Improved Washing-Machine; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

Our invention consists in providing certain improvements in washing-machines.

The accompanying drawing represents our invention as follows:

Figure 1 is a side view of one of our machines, with the tub to which it is attached in section. Fig. 2 is an end view of our machine with part of the end-board broken away, so as to show the workings of a portion of our machine more perfectly. Fig. 3 is a transverse sectional view of the rolls H′ H′, the lines *x x* in Figs. 1 and 2 being the lines of section. Figs. 4 and 5 are views of detached parts of our invention — viz., the attaching brackets used to attach the machines to the tubs.

The following is a description of the construction of our invention: The frame-work of our machine is composed of the bed-piece N, uprights or end pieces D D, and cross-piece E. Within this frame-work are hung the working parts of our machine. They consist of the large corrugated rubbing-roller B, which is hung on the shaft I, and operated by the crank P and the small rollers H′ H′ H′. The section view, Fig. 3, shows these most plainly. They are a series of small rollers so placed that they shall surround the lower part of the large roller B. These small rollers all have their journals in the end boards D D. The construction of these rollers is as follows: They are all constructed with annular grooves, which are of equal depth and equal width, and are separated from each other by a space equal to the width of the grooves, so that the annular rim thus formed on one roller will fit in the annular groove of its adjacent roller. Thus the system of rollers all match together and form an uneven surface below the rubbing-roller B. This construction of the lower or smaller rollers adds to the cleansing power of the machine; but the chief object of this form of construction is to prevent clothes from passing in between the small rollers, which object is thoroughly accomplished. The rubbing-roller B is self-adjusting vertically. This is accomplished by having the shaft I operate in a slot in the end boards D D, and journaled on sliding journal-boxes J, which are guided in their vertical action by the rods L, which pass through the cross-piece E. It is evident that this vertical automatic adjustment must be regulated by some kind of a yielding pressure. This is provided by the spring K, which is coiled about the rod L, and operates against the sliding journal-box J, and thus on the roller B. It often becomes necessary to lift the rubbing-roller up, so as to adjust the clothes when they become disarranged or caught in any way. This is accomplished by the prop G, which is a kind of button hung to the face-plate F. This button, when the shaft I is lifted, is placed under it like a prop, and thus holds the roller B up from the lower rollers. The face-plate F is for the purpose of preventing the upright D from splitting, and to prevent the shaft I from wearing the wood away, and also to act as a guide to the sliding journal-box J.

Having thus fully described the construction of our invention, we will show the manner of attaching the same to the tub. The devices for doing this are shown in Figs. 4 and 5. They consist of the castings M and N. These are of different forms. The casting M consists of the back B′ and the right-angle flange A′ on the lower side and a perpendicular tenon or lug, C′. The casting N is formed of a back, B′, and two right-angle flanges, A′ A′, one at the top and one at the bottom, with the lug C′ connecting the two. The casting N is much longer than the casting M. These are screwed to the sides of the tub, as seen in Fig. 1. The machine is attached to the tub by these castings in the following manner: In each end of the base-board H is sawed a narrow slot, C, which admits the lug C′. The machine is put in the castings by first putting one end of the base-board H into the casting N, and then shoving the other end down onto the casting M, the lug C′ always entering the slot C.

The small rollers H H′ are not intended exclusively for the machine herein described. They can be used on any kind of a washing-

machine where a series of small rollers are used in conjunction with a large rubbing-roller.

What we claim as new is as follows:

1. The series of rollers H′ H′, constructed and operated together as described, in combination with the large rubbing-roller B, for the purposes specified.

2. The button-prop G, in combination with the large rubbing-roller B, shaft I, and spring K, when arranged as and for the purposes set forth.

3. The rubbing-roller B, small rollers H′ H′, &c., uprights D D, and base-board H, all arranged and constructed as described, in combination with the castings M and N, for the purposes described.

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