W. CHURCH.
Washing-Machine.

No. 219,147. Patented Sept. 2, 1879

Fig 1

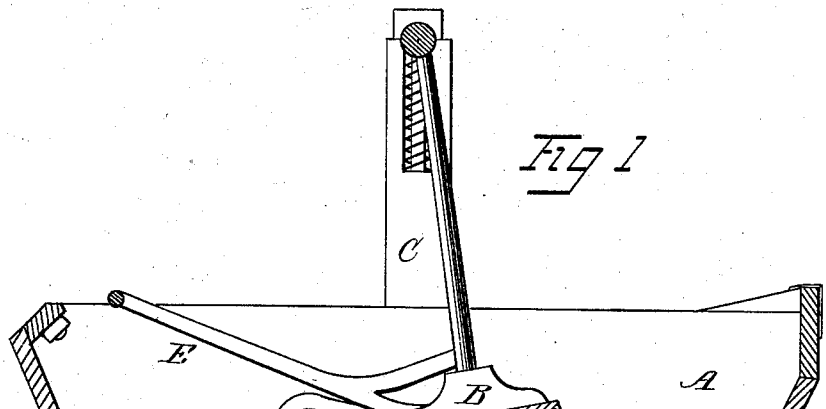


Fig 2

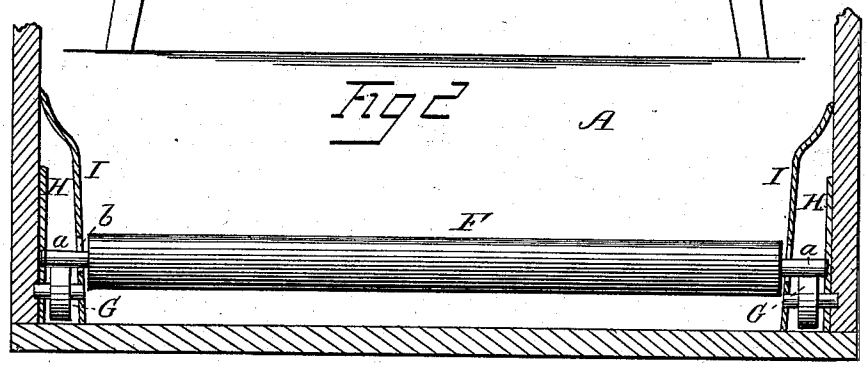
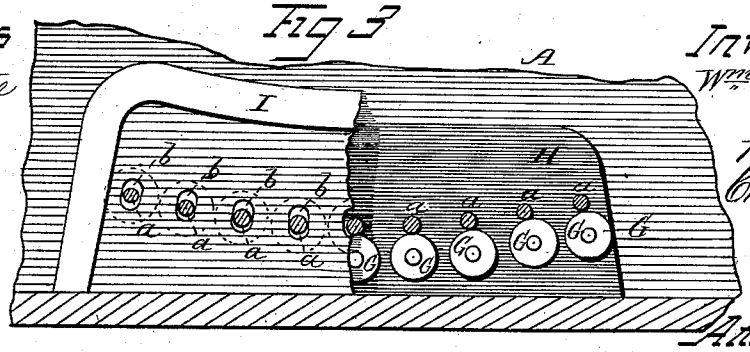


Fig 3



Witnesses
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per
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UNITED STATES PATENT OFFICE.

WILLIAM CHURCH, OF WEST HAVEN, CONNECTICUT.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **219,147**, dated September 2, 1879; application filed July 8, 1879.

To all whom it may concern:

Be it known that I, WILLIAM CHURCH, of West Haven, in the county of New Haven and State of Connecticut, have invented a new and valuable Improvement in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a vertical section of a washing-machine embodying my invention. Fig. 2 is a section of the suds-box with the rollers; Fig. 3, a detail view, showing the manner of connecting the roller-bed with the friction-rollers.

The present invention has relation to that class of washing-machines in which the clothes are rubbed upon a concave bed of rollers, and is designed more particularly as an improvement upon the patent granted to Thomas Sault, May 16, 1876, No. 177,570.

The invention consists in a series of friction-rollers arranged upon each side of the suds-box, and confined between two plates or frames, in connection with a series of parallel rollers which form the bed upon which the clothes are placed, the journals of each roller passing through slots in the plates or frames, and resting upon the top of the friction-roller, as will be hereinafter described.

In the accompanying drawings, A represents the suds-box, of rectangular or other form. The rubber B, which may be of any suitable construction, is secured to a frame consisting of uprights C, one upon each side of the suds-box, and arranged to slide vertically, so as to bring the rubber B down upon the clothes by foot-pressure upon a treadle, D, the rubber being provided with a handle, E, for operating it.

The rubber, with its several connections, is similar to that shown in the patent previously referred to, and therefore it may be changed or modified without departing from the spirit of my invention.

The parallel rollers F are arranged, as shown in Fig. 1 of the drawings, to form together a concave bed, upon which the clothes are placed and spread out.

The journals *a* of the rollers F rest upon the top of friction-rollers G. These rollers are arranged upon the arc of a circle, their journals being supported in plates H and frames I, secured by screws or other suitable means to the inner sides of the suds-box A.

The journals *a* of the rollers F pass through vertically-elongated slots *b* in the frames I, to hold the rollers in their relative position and admit of their having the required vertical play during the process of rubbing the clothes.

It will be noticed that the slots *b* are arranged in the plate or frame I so as to come over the top of the friction-rollers G, or nearly so, whereby the center roller is directly on top and the others inclining from the top on the radius of the circle, so that the bearings against them come directly against the bearing upon the center of the rollers G.

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

The plates H, frames I, with slots *b*, and the rollers G, confined between the plates and frames, in combination with the rollers F, forming the bed of a washing-machine, and having their journals *a* resting upon the top of the friction-rollers G, substantially as and for the purpose described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM CHURCH.

Witnesses:

JAMES C. HYDE,

FREDRICK W. BISHOP.