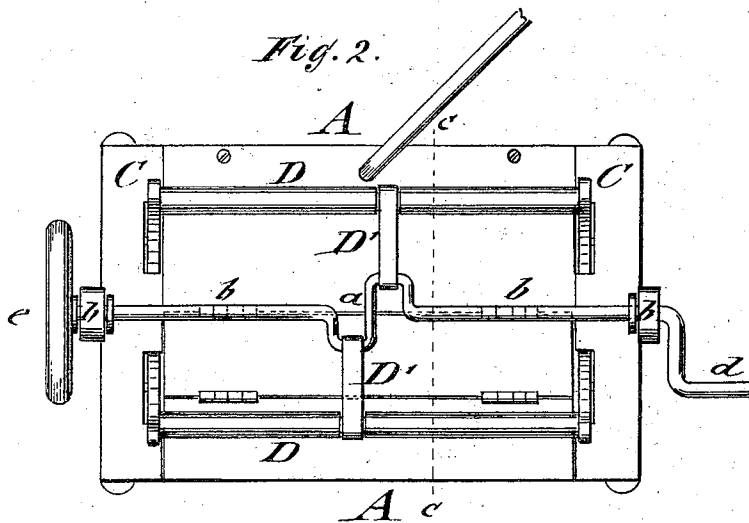
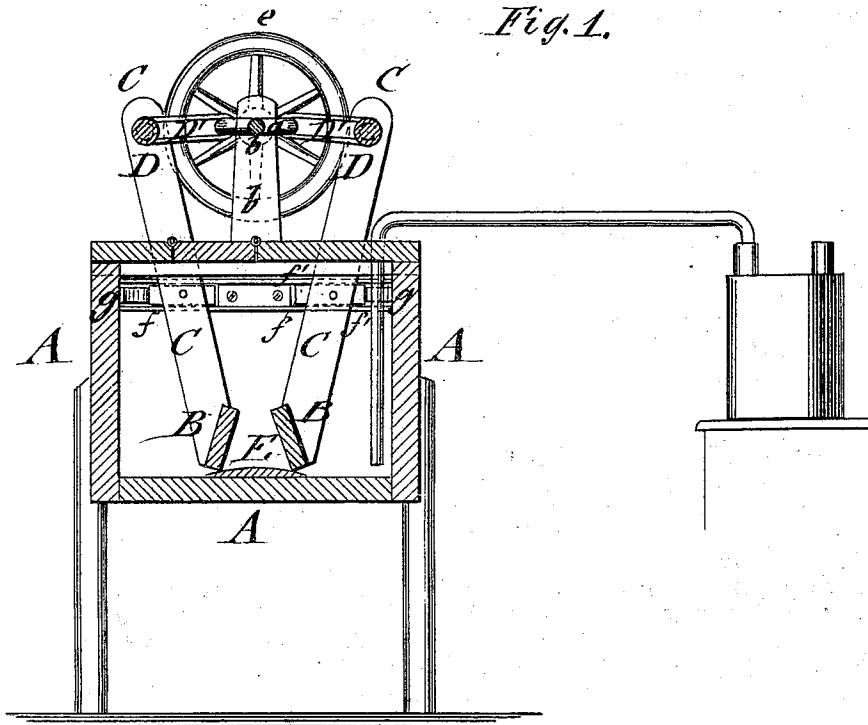


S. CROFT.
Washing-Machines.

No. 153,756.

Patented Aug. 4, 1874.



WITNESSES:

E. Wolff.
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INVENTOR:

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UNITED STATES PATENT OFFICE.

SAMUEL CROFT, OF WILMORE, PENNSYLVANIA.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **153,756**, dated August 4, 1874; application filed February 28, 1874.

To all whom it may concern:

Be it known that I, SAMUEL CROFT, of Wilmore, in the county of Cambria and State of Pennsylvania, have invented a new and Improved Washing-Machine, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a vertical transverse section on the line *c c* (Fig. 2) of my improved washing-machine; and Fig. 2 a top view of the same.

Similar letters of reference indicate corresponding parts.

The invention will first be fully described, and then pointed out in the claim.

In the drawing, A represents the receptacle or casing of the washing-machine, which is provided with a hinged lid, a bottom spigot for drawing off the water, and a hole at the top for admitting the pipe connecting with a steam-boiler, so that the machine may be used with or without the application of steam, as desired.

The clothes and hot water are placed through the hinged top into the receptacle, and set into motion by means of paddles B, which are attached, under suitable inclination, to the lower ends of two arms, C, pivoted to the sides of receptacle A. The upper parts of arms C extend above the top of the washer, and are connected by longitudinal rods D, which are provided near the center with fixed arms D', under right angles to rods D. The ends of the arms D' are pivoted to a double crank, *a*, of the driving-shaft *b*, which is turned stead-

ily in vertical bearings *b*, by means of a handle, *d*, and balance or fly wheel *e*. A regular reciprocating motion of the paddles is thereby obtained, and consequently the agitation of the soap-water in opposite directions toward the clothes. The bottom of the washer has a central longitudinal board, E, with slightly-inclined or curved sides, along which the paddles slide, so that the clothes cannot get under the paddles, and obstruct thereby the regular strokes of the same. The paddle-arms C are pivoted to slide-pieces *f*, which are guided in strips *f'* at the sides of the washer. Band-springs *g* act on slides *f*, and force them toward the center of the washer, giving thereby the paddles a certain degree of play when the clothes accumulate between them, and preventing too great a strain on the arms and the driving-parts of the washer. The flexible yielding of the paddles protects equally the clothes and the connecting parts, and secures a steady, easy, and effective working of the apparatus.

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

The combination of the pivoted paddle-arms with the spring-slides and guide-strips of the washer, for giving flexibility to the paddles, as set forth.

SAMUEL CROFT.

Witnesses:

AUGUSTUS SCHNARS,

AUGUST SHAFER.