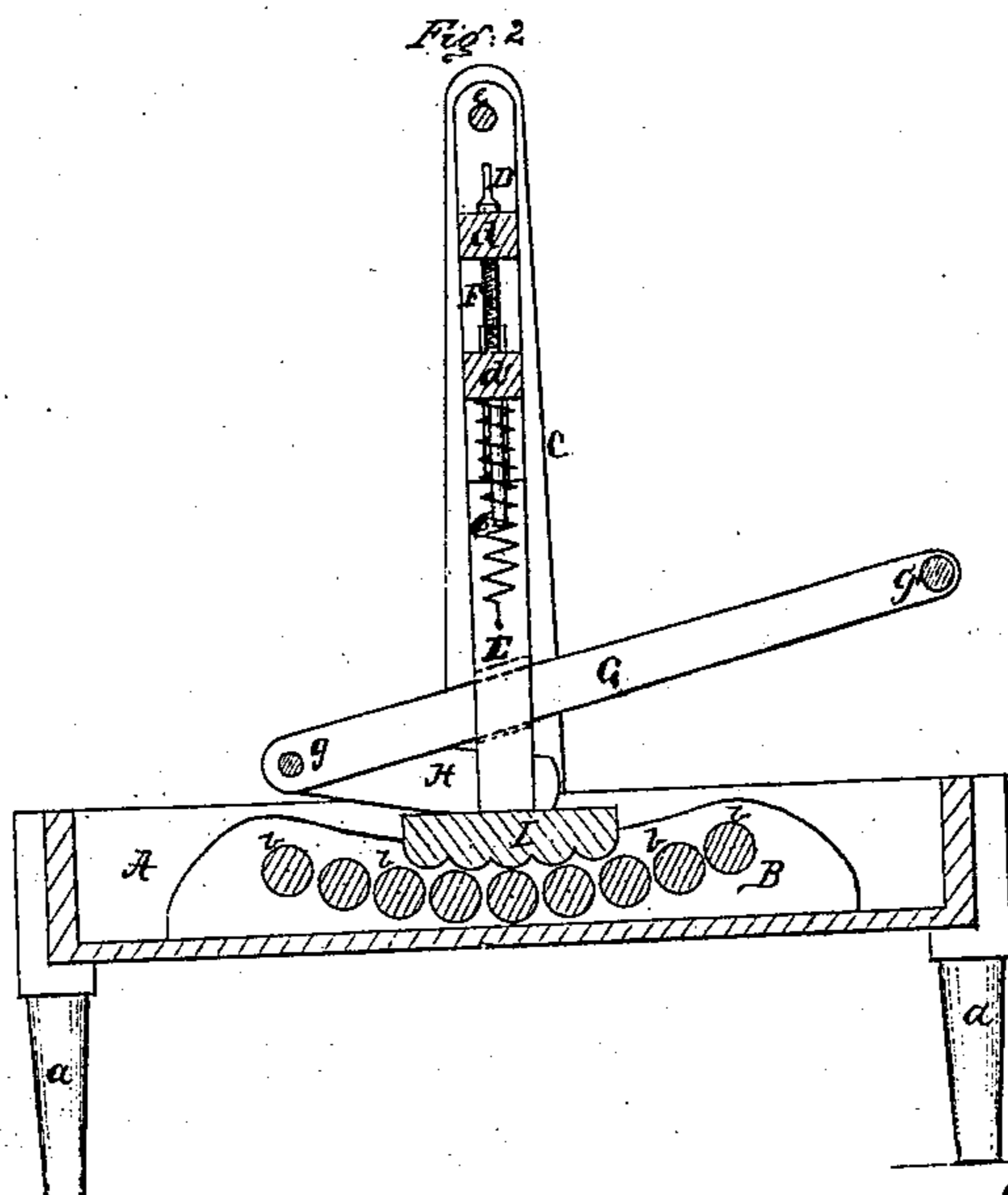
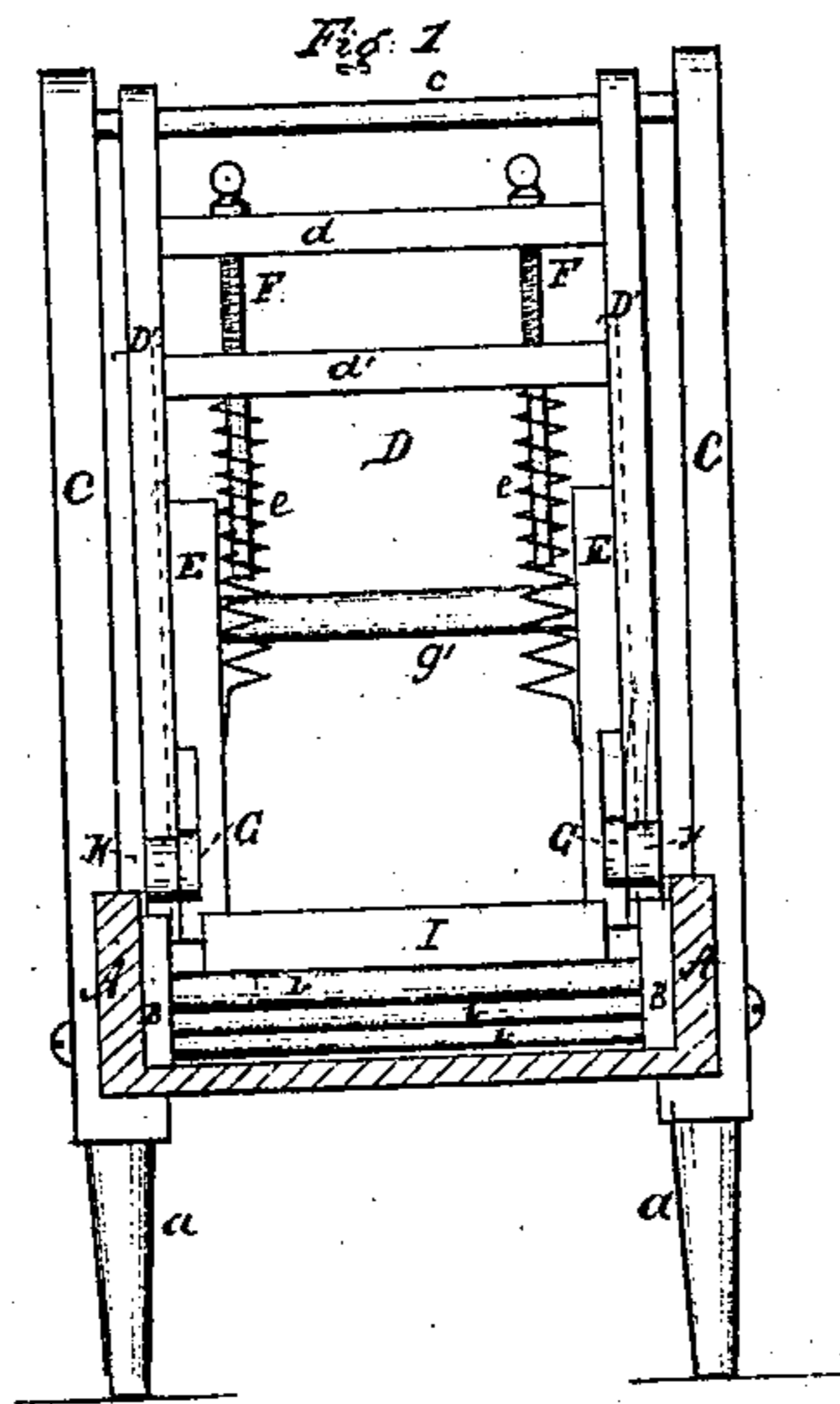


J. W. Graffam,

Washing Machine.

No. 105,193.

Patented July 12, 1870.



Witnesses
Wm. Henry Duckel
H. J. Peyton

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United States Patent Office.

ISAIAH W. GRAFFAM, OF NEW BEDFORD, MASSACHUSETTS.

Letters Patent No. 105,193, dated July 12, 1870.

IMPROVED WASHING-MACHINE.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, ISAIAH W. GRAFFAM, of New Bedford, in the county of Bristol and State of Massachusetts, have invented a new and useful Improvement in Washing-Machines, of which the following is a specification.

Nature of Invention.

My invention consists in so arranging the handle and rubber of washing-machines that the rubber may be adjusted by simply raising and lowering the handle; and, in order to allow the rubber to accommodate itself to any inequalities in the mass of garments being washed, springs are so situated, in regard to the rubber, that it can yield to the said inequalities, and thus prevent stopping in the midst of the work.

In the drawing—

Figure 1 is a back elevation of my device, and
Figure 2 is a central longitudinal section.

Description.

In carrying out my invention, I construct a tub, wash-box, or trough, A, of any desired form, but by preference of that of a parallelogram, mount it on legs *a a*, and secure to two opposite sides of the trough pieces of wood, B B, which form bearings for rollers, *b b*, arranged transversely across the trough, in such a manner as to form a concave rubber, occupying the middle part of the bottom of the trough.

Standards C C are secured to the opposite sides of the trough, and extend up some distance above the level thereof, their ends forming bearings for a bar, *c*, from which is suspended a frame, D, which is composed of two arms, D' D', held together by a cross-bar, *d*.

A second frame slides in guides in frame D, and consists of arms E E, carrying, at their lower ends, the rubbing-board I, which consists of a piece of hard wood, with its under surface transversely ribbed or corrugated. This frame slides in guides formed in the frame D.

In order to overcome any inequalities in the articles to be washed, I attach coiled springs *c c*, one to each of the arms E E, by one end, and secure the other end to a sliding bar, *d'*, which works in grooves formed in the arms D' D'.

Set-screws F F are fitted in the cross-piece *d*, and pass down through the sliding bar, so as to extend partly into the coil below, and thus steady it, and hold it in place.

At right angles to the arms D' D', I fasten short pieces or arms, H H, which project to any desired dis-

tance, and have on their ends a rod, *g*, which forms an axis for handles G G.

These handles pass through openings in the arms E E, at a slight angle of elevation, and, projecting thence to near the end of the tub or trough, are joined together by a bar, *g'*, which forms, with the other parts, the means of communicating motion to the frame D, and I call it the "handle."

In operation, the trough may be filled with soap-suds and water to any desired height, and the clothes placed therein on the concave rubber. The handle is raised, and lifts with it the rubbing-board. If only a thin layer of clothes is placed on the concave, the rubbing-board frame is lowered by turning the screws, so as to push the sliding bar down into the groove, and hold it there; and, if a thick layer is to be washed, this is reversed. The frame cannot rise to the bar on account of the pressure of the springs, and, when the handle is pushed back and forth, the openings will produce an elasticity in the rubbing-frame, which will effectually prevent the clothes from being torn, and, at the same time, sufficient pressure will be had to thoroughly cleanse them.

This handle serves not only to operate rubbing-board, but also to raise and lower the frame to which it is attached when it becomes necessary to do so.

By working the rubbing-board frame in guides, only a vertical motion is allowed, and thus the action of the board is rendered free and easy.

A faucet is placed in the trough, by means of which the water, when not used, may be drawn off.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The suspended swinging frame D, carrying the sliding rubber-frame E E I, the set-screws F, and springs *c c*, substantially as and for the purpose set forth.

2. The handles G, pivoted, at one end, to extensions H of the frame D, and passing through openings in the sliding frame E, so as to leave the other end project freely beyond the rubber, for the twofold operation of moving the rubber, and adjusting it to the inequalities of the clothes, substantially as described.

To the above I have signed my name this 3d day of June, 1870.

ISAIAH W. GRAFFAM.

Witnesses:

OLIVER PRESCOTT,
H. L. PERRINE.