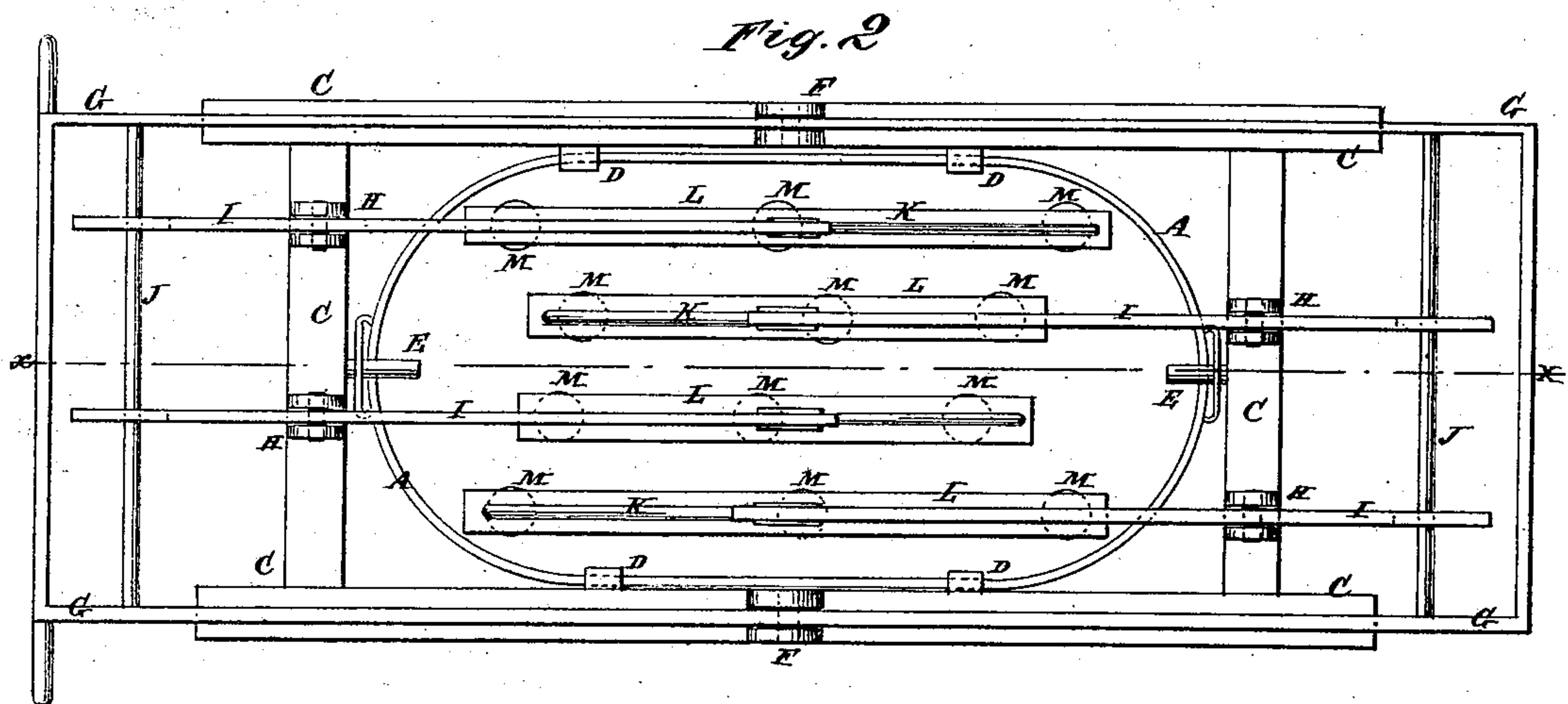
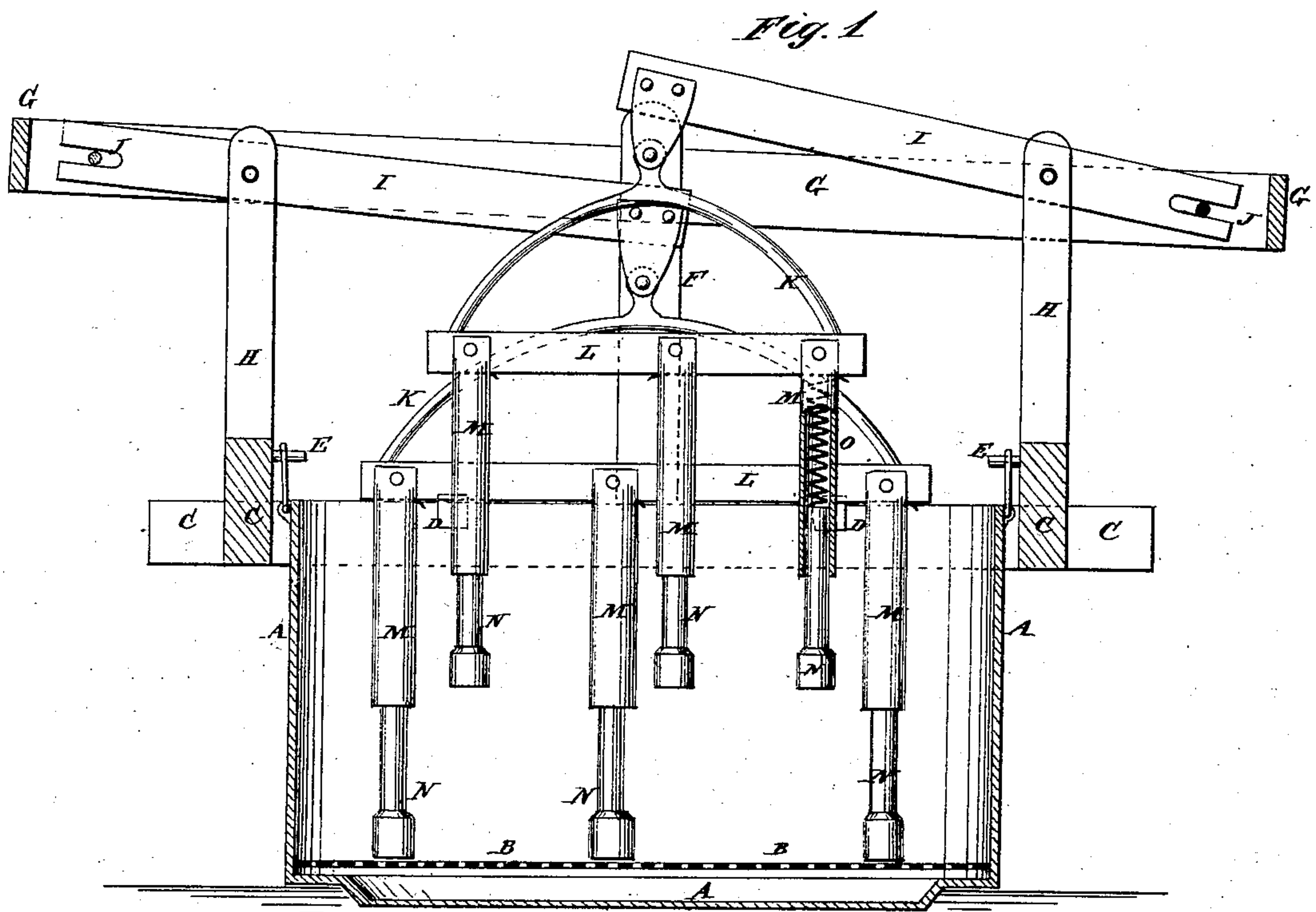


C. BAGNALL.
Washing-Machines.

No. 153,519.

Patented July 28, 1874.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES BAGNALL, OF AMITY, IOWA.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **153,519**, dated July 28, 1874; application filed November 15, 1873.

To all whom it may concern:

Be it known that I, CHARLES BAGNALL, of Amity, in the county of Page and State of Iowa, have invented a new and useful Improvement in Washing-Machine, of which the following is a specification:

Figure 1 is a vertical longitudinal section of my improved washing-machine, taken through the line *x x*, Fig. 2. Fig. 2 is a top view of the same.

Similar letters of reference indicate corresponding parts.

My invention is an improvement in the class of washing-machines in which pounders are used to act on the clothes while saturated or immersed in hot water or suds; and the feature of novelty is the combination of elastic pressers and apparatus for reciprocating or operating them, as hereinafter described.

A represents a boiler, which may be an ordinary wash-boiler, or one made expressly for the machine. The boiler A is provided with a perforated false bottom, B, to prevent the clothes from coming in contact with the boiler bottom, so that there may be a water-space below the clothes. The effect of this is that the steam and boiling water forced upward by the heat will raise the clothes and loosen them, and cause them to move, so that the steam and water may pass through the clothes more freely, and thus cleanse them more quickly and thoroughly. C is a rectangular frame of such a size as to receive the mouth of the boiler between its side and end bars. To each side bar of the frame C are attached two hooks, D, to hook upon the edge of the side of the boiler A to support the frame C and its attachments; and to each of the end bars of said frame C is attached a pin, E, over which the wire handle of the boiler A is passed, so that the frame may be held securely in place. To the centers of the side bars of the frame C are attached standards F, to the upper ends of which are pivoted the centers of the side bars of the frame G, which is made longer than the frame C, and its end bars may serve as handles for operating the machine, or it may

have handles attached to its ends. To the end bars of the frame C are attached standards H, two or more to each end bar, and which should not be opposite each other, as shown in Fig. 2. To the upper end of each standard H is pivoted a lever, I. The outer ends of the levers I are slotted longitudinally to receive rods J, the ends of which are secured to the side bars of the frame G near their ends, so that the said levers I may be oscillated by oscillating the said frame G. To the inner end of each of the levers I is pivoted a bow, K, by means of an eye or lug formed upon the middle part of said bow. To the ends of each bow K are attached the ends of a bar, L, to which are pivoted the upper ends of three, more or less, tubes, M, according to the size of the machine. N are presses, the shanks of which are fitted into the lower ends of the tubes M, and which are held in place by coiled-wire springs O placed in the upper part of the tubes M, and the upper ends of which are attached to the upper ends of the tubes M, and their lower ends are attached to the upper ends of the shanks of the presses N.

By this construction the presses can yield to accommodate themselves to the different thicknesses of the mass of clothes that may be in the boiler. The bars L should be of different lengths or the tubes M should be pivoted to them in different positions, so as to distribute the presses more generally through the boiler. By this construction, by the combined action of the boiling water, the steam, and the presses, the clothes will be washed evenly, uniformly, and thoroughly.

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

The combination of the oscillating frame G, the pivoted levers I, and the pivoted bows K, with the series of elastic presses L M N O, substantially as herein shown and described.

CHARLES BAGNALL.

Witnesses:

R. H. LYMER,

G. H. CHAPMAN.