

(Model.)

M. K. BISER.
WASHING MACHINE.

No. 438,223:

Patented Oct. 14, 1890.

Fig. 1.

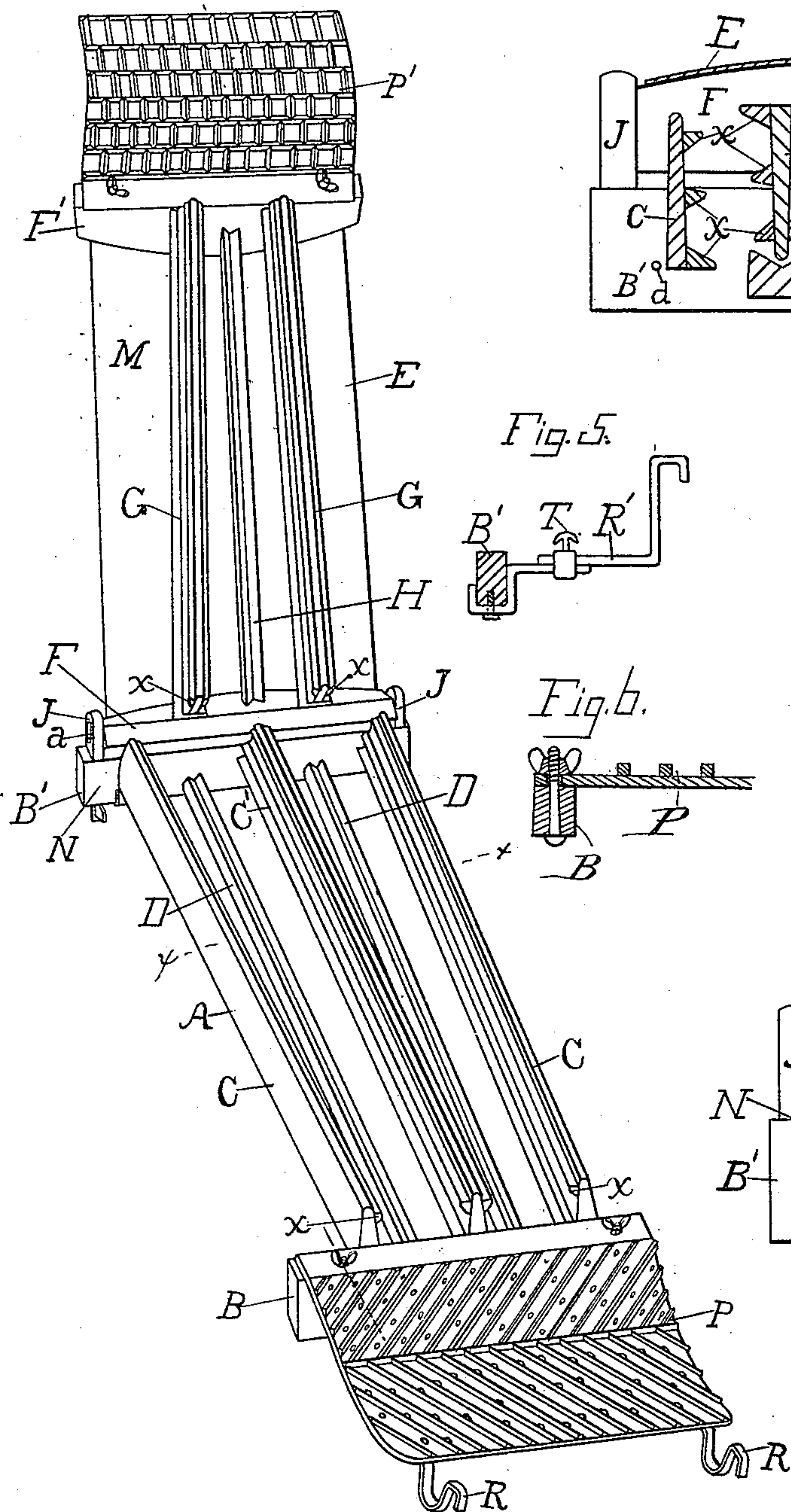


Fig. 2.

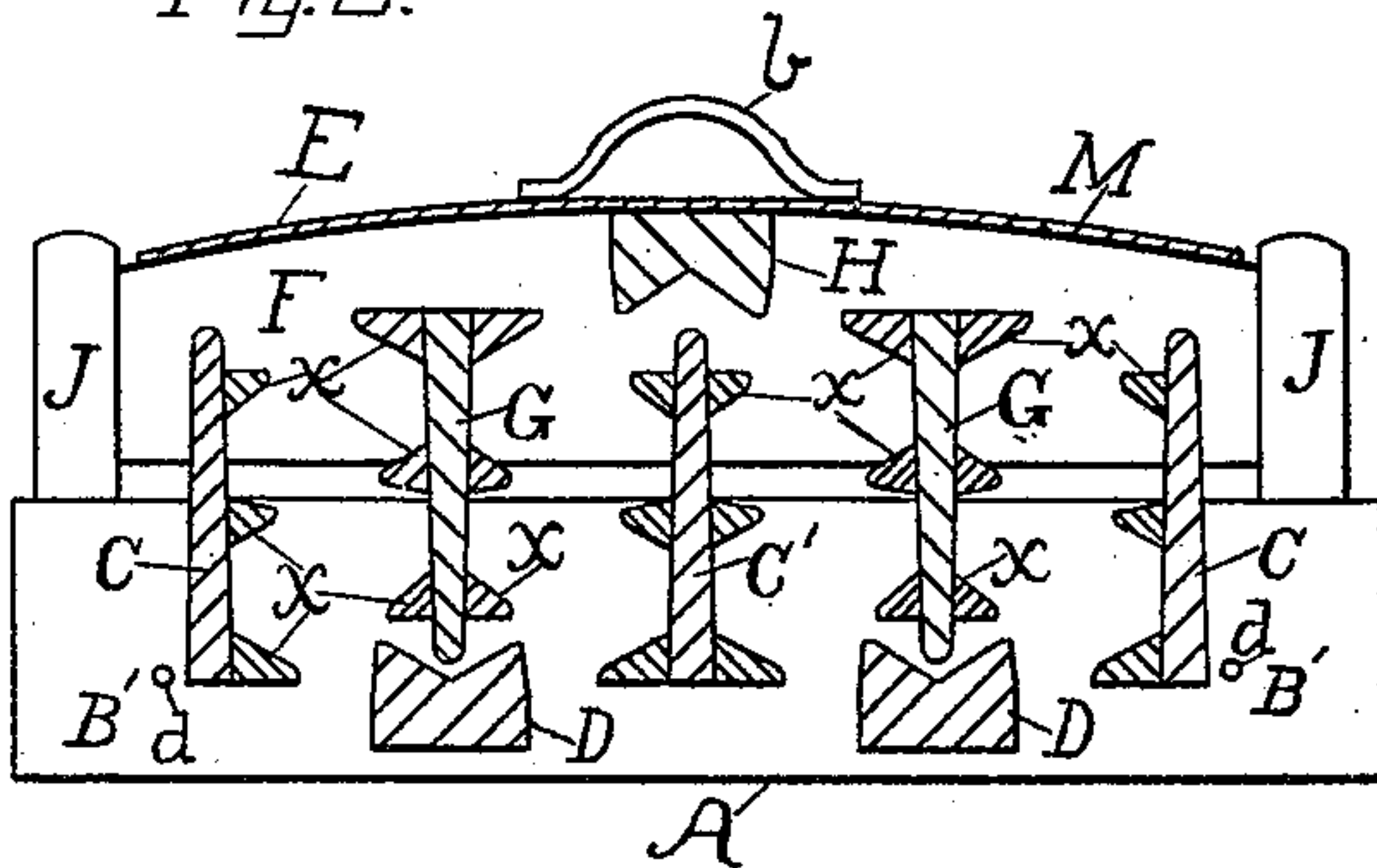


Fig. 5.

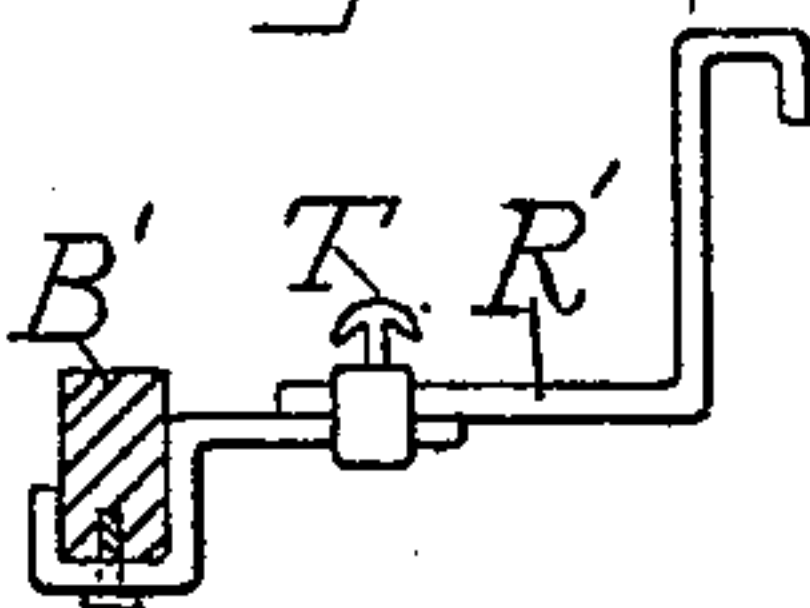


Fig. 3.

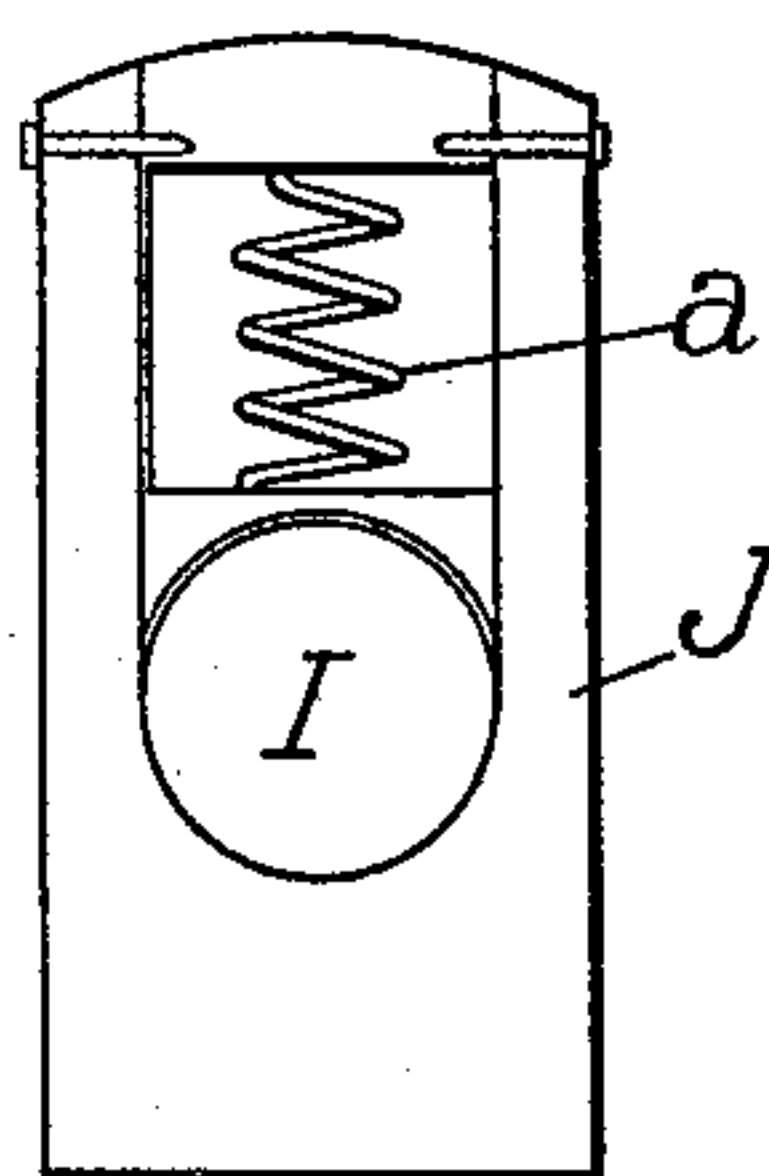


Fig. 6.

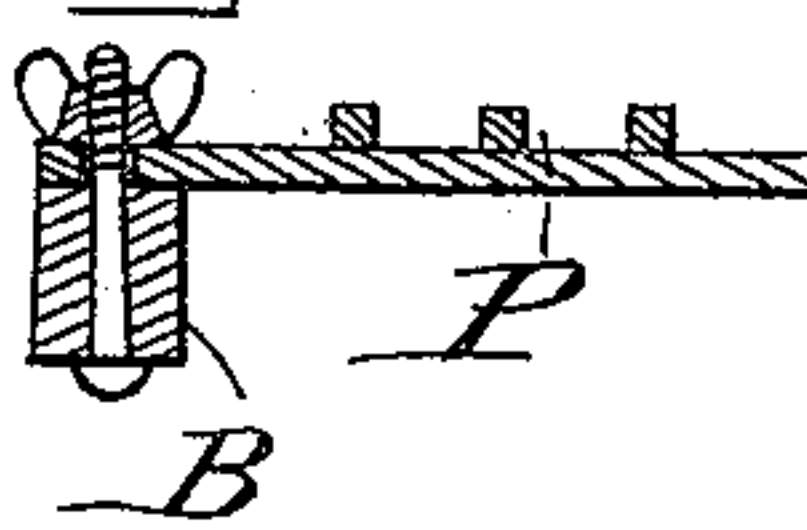
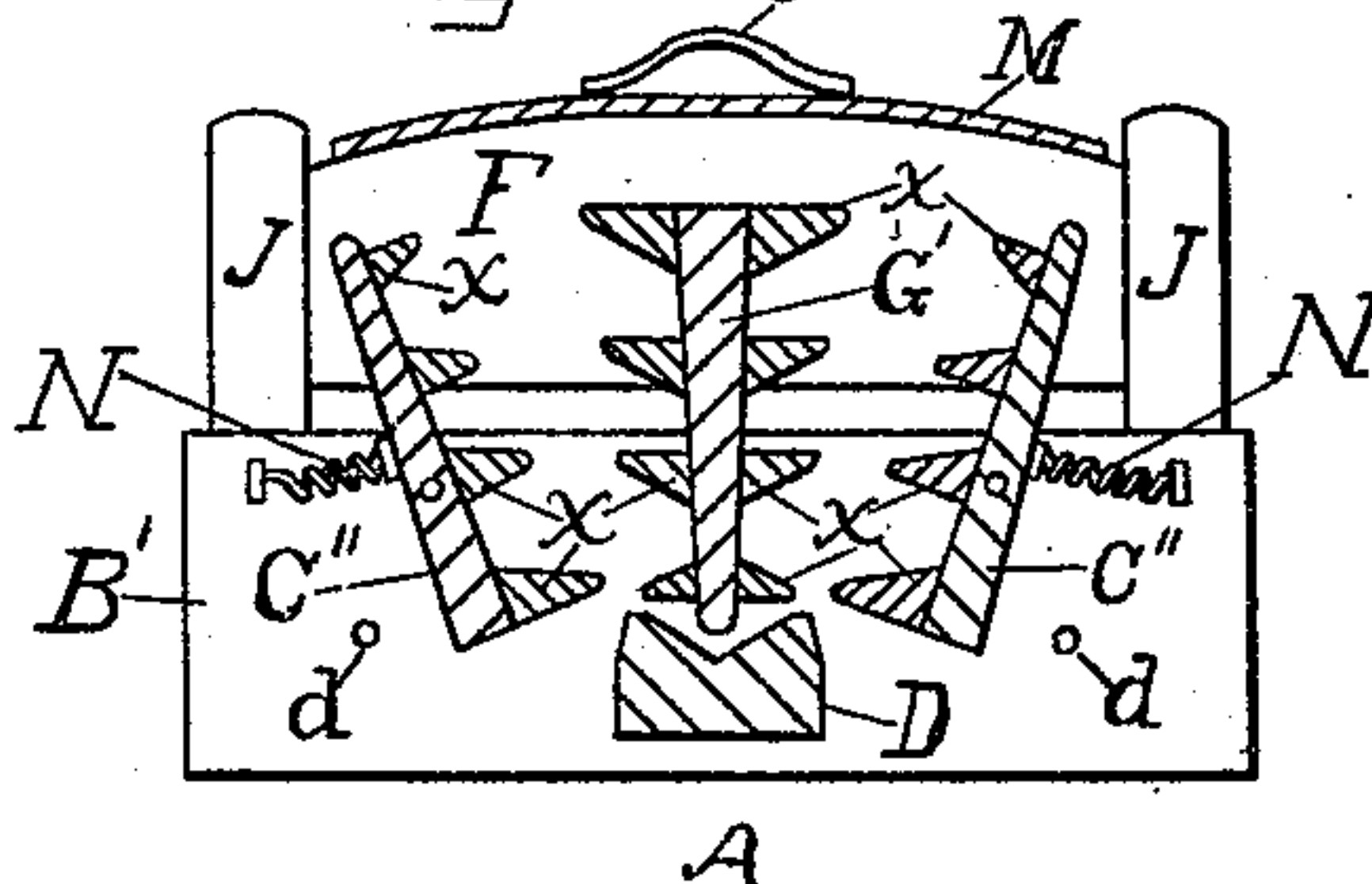


Fig. 4.



Witnesses

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WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 438,223, dated October 14, 1890.

Application filed June 13, 1889. Serial No. 314,162. (Model.)

To all whom it may concern:

Be it known that I, MAHLON K. BISER, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented certain Improvements in Washing-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

Figure 1 represents a perspective view of the machine open. Fig. 2 represents a cross-section of the same, taken at line $x x$ of Fig. 1, when the machine is closed. Fig. 3 represents one of the journals and boxing connecting the hinged upper part of the machine. Fig. 4 represents a cross-section of the machine made with but one beater attached to the hinged part. The bars C'' are shown in the position they would assume if a quantity of clothes were being washed. Fig. 5 represents the adjustable brackets by which the machine may be adjusted to stand in wash-tubs of different sizes. Fig. 6 illustrates the removable parts $P P'$.

The base A consists, mainly, of solid end pieces $B B'$, connected by a series of longitudinally-arranged laterally-ribbed bars $C C'$ and fluted sills D . The bars $C C'$ are rigidly secured to the frame-pieces $B B'$; but the two outer bars C may be pivoted at their ends to the frame-pieces and be held normally in a vertical position by springs N . Fig. 4 illustrates this construction in a machine smaller than that shown in Fig. 1.

The working part E of the machine is hinged by one end to the base, and consists, mainly, of the two end pieces $F F'$, connected by a corresponding series of longitudinally-arranged ribbed bars $G G$ and a fluted bar H . The end piece F is provided with journals I , which work in boxes formed in studs J , secured to the opposite ends of end piece B' , and a spiral spring a is inserted in each stud, as shown in Fig. 3, to allow vertical yielding of the working-bars.

In Fig. 4 the machine is shown of reduced size, having but one fixed central working-bar G' and two bars C'' , pivoted to end pieces B' , (which represents but one end of the machine.) A suitable handle b is fast to the cover or dash-board M .

In the modification shown in Fig. 4 the pivoted bars C'' have a spring N , of rubber or metal, which holds them normally in a vertical position, and studs d are inserted in end pieces $B B'$, against which the lower edges of the pivoted bars will be pressed by said springs when the machine is not in use, and the pivoted bars are not made to yield to the pressure of clothes being washed.

At the end of the respective parts A and E I have secured upon rigid arms corrugated plates $P P'$, as shown in Figs. 1 and 6, and their means of attachment to the outside of end pieces B and F' are such as to enable them to be readily removed when not required for the work for which they are designed—namely, the washing of fine fabrics, as laces, curtains, &c.

In using this machine it will be set bodily into tubs of any form and suspended upon the hooked brackets $R R'$, the latter being adjustable, as shown in Fig. 5, which exhibits the clasp and set-screw T , joining the adjustable parts of hooked brackets R' , connected to the outside of end piece B' . Clothing to be washed will be introduced over the bars C or C'' , when the operator will grasp the handle b and move the hinged part E up and down upon its journals, which will cause the clothing to be pressed between the ribs $x x$, &c., of the bars and down into the washing-water in the tub. The action of the ribs $x x$ and fluted pieces D , together with the bars $G G$, will cause the necessary rubbing, pressing, and squeezing upon the clothing to quickly disengage the dirt from them. Of course the attendant will change the position of the clothing in the machine from time to time as the work proceeds. The auxiliary or attachable ribbed plates $P P'$ for fine washing can be attached and used when only fine work is to be done.

I do not limit my claim to a machine provided with the pivoted bars shown in Fig. 4; but I desire to claim the machine broadly, whether such bars are pivoted or not.

Having described my invention, I claim—

1. The combination of the base, consisting of end pieces connected by a series of longitudinally-arranged laterally-ribbed bars and fluted sills, and the working part hinged by

one end to such base and consisting of the two end pieces connected by a corresponding series of longitudinally-arranged laterally-ribbed bars and a fluted bar.

- 5 2. In combination with the parts A and E, constructed as described, and united by a yielding hinge, as shown at J, the ribbed at-

tachable plates P P', as and for the purpose specified.

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Witnesses:

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