

(No Model.)

J. S. BLOOD.

2 Sheets—Sheet 1.

WASHING MACHINE.

No. 465,152.

Patented Dec. 15, 1891.

FIG. 1.

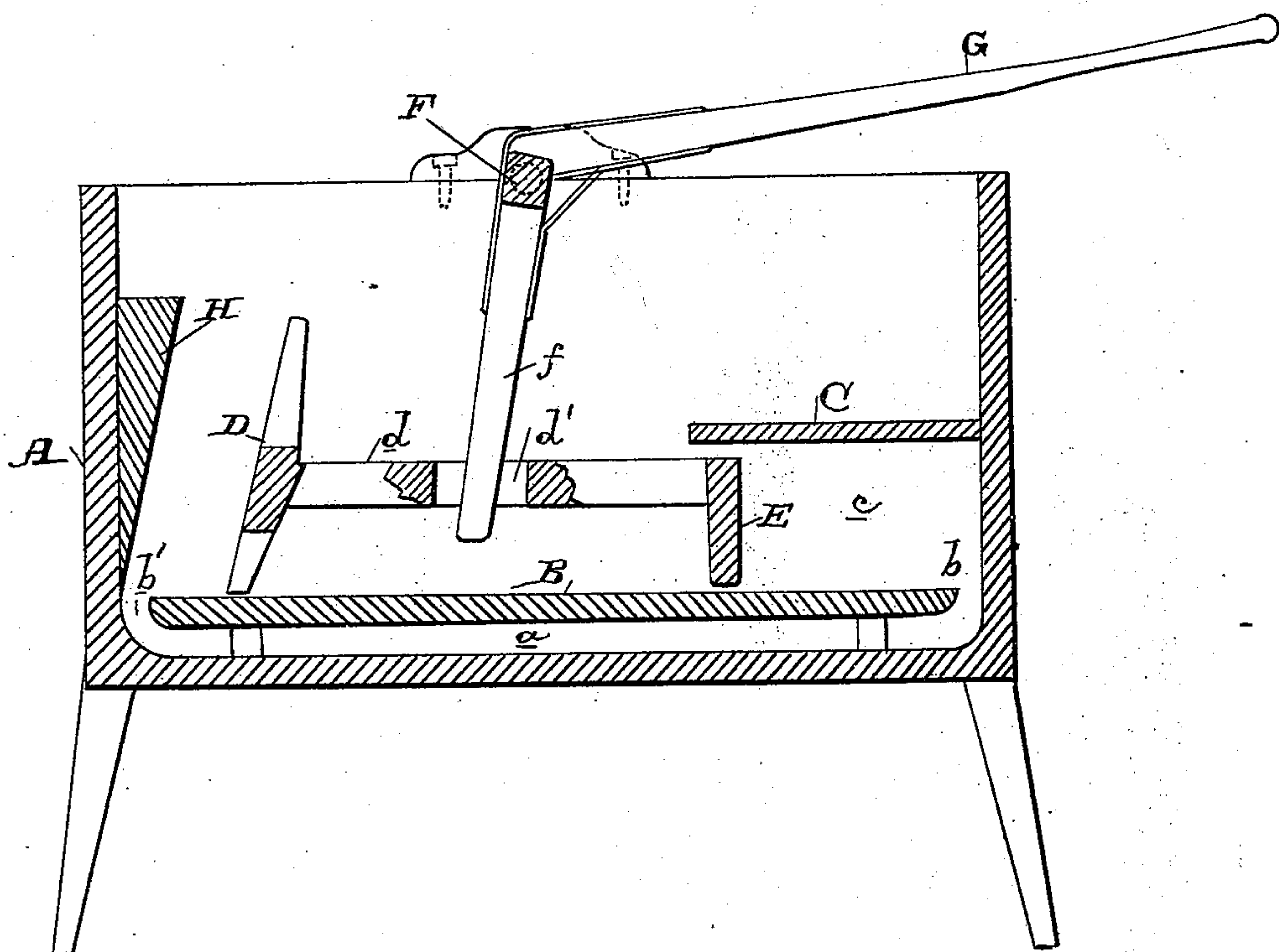
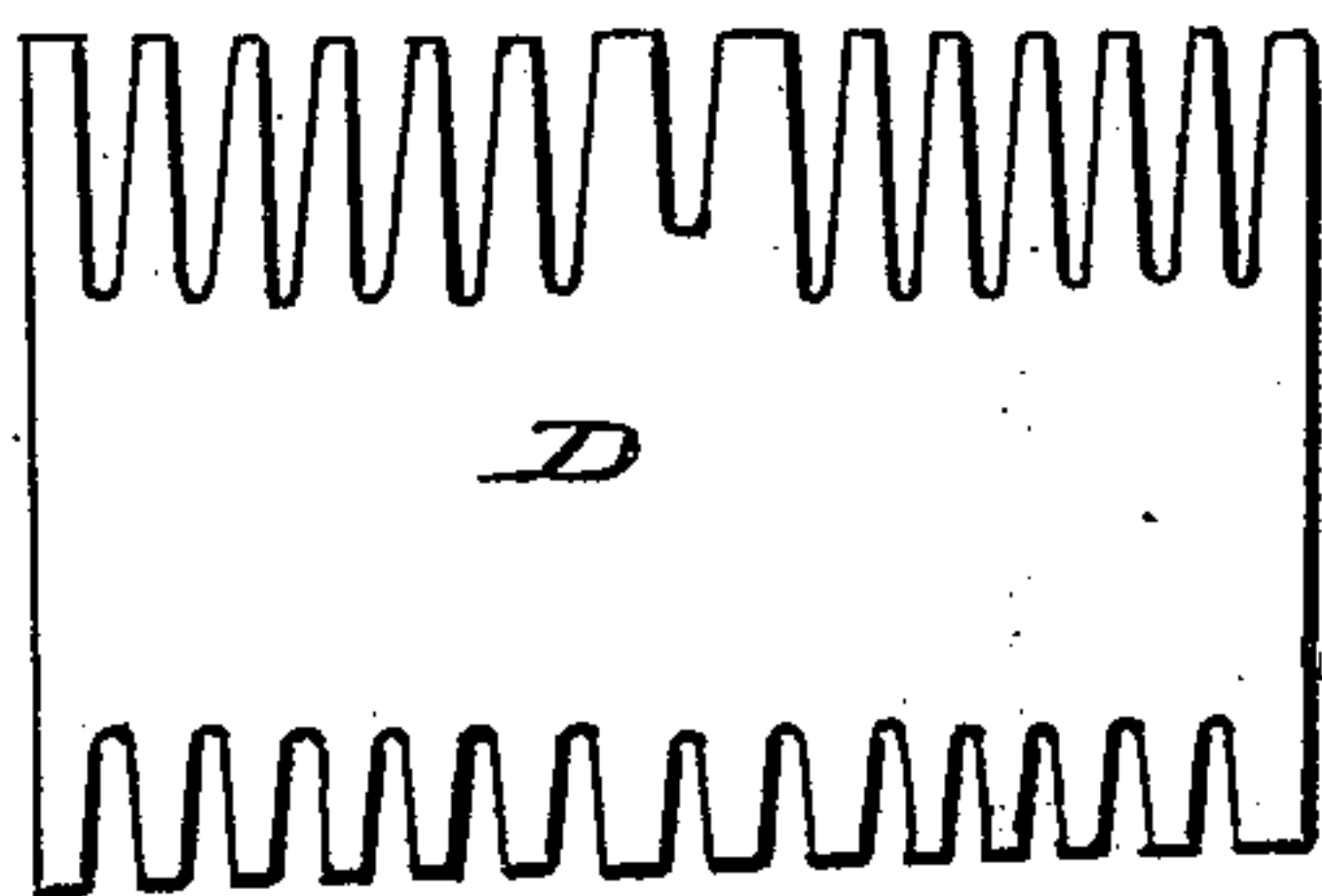


FIG. 2.



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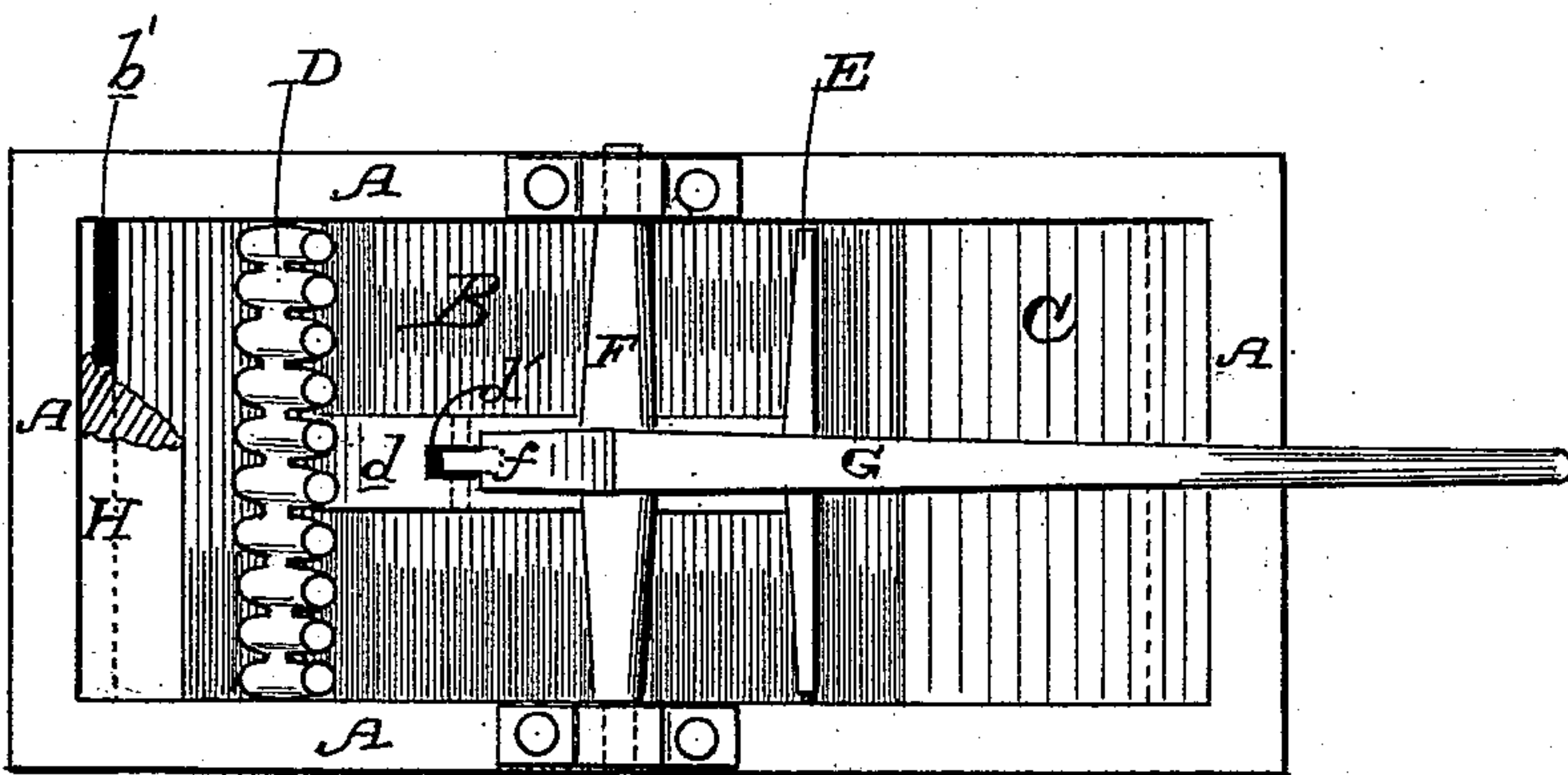
J. S. BLOOD.
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Fig. 3



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UNITED STATES PATENT OFFICE.

JOEL S. BLOOD, OF NAPA, CALIFORNIA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 465,152, dated December 15, 1891.

Application filed May 7, 1891. Serial No. 391,946. (No model.)

To all whom it may concern:

Be it known that I, JOEL S. BLOOD, a citizen of the United States, residing at Napa, Napa county, State of California, have invented an Improvement in Washing-Machines; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to the class of washing-machines; and it consists in the novel construction and arrangement of casing, presser, and plunger hereinafter fully described, and specifically pointed out in the claim.

The object of my invention is to provide for a circulation of the water in the casing in such a manner that it will be driven around, under, and behind the clothes, thoroughly permeating them, and by its force producing in the mass a turning and agitation very beneficial to the cleansing process.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a vertical longitudinal section of my washing-machine. Fig. 2 is a view of the presser D. Fig. 3 is a plan view of the machine.

A is the casing of my washing-machine. Within it is a false bottom B, so situated as to leave a passage *a* under it, extending the whole length of the casing. At one end this passage communicates with the main body of the casing through an opening *b* and at the other end through another opening *b'*, the former being the inlet and the latter the exit, the latter opening having an upward and backward curve to direct the water upwardly against the clothes in an unbroken stream. Within the casing, at the end where the inlet-opening *b* is situated, is a horizontal plate C, which forms with the bottom B and the sides of the casing a plunger-chamber *c*.

D is the presser, consisting of a suitable open frame-work, here shown as formed of a series of upright slats, the ends of which are open or spaced to provide for the free passage of the water. From the back of this presser extends a stem *d*, on the rear end of which is secured the plunger E.

F is a rock-shaft fitted with a handle G and having a downwardly-extending crank-arm *f*, which plays freely through a slot *d'* in the stem *d*.

At the presser end of the casing may be fixed an abutment-plate H, of tapered form, having its inner wall inclined upwardly and inwardly, so as to overhang. This plate H causes the clothes, which are pressed against its inclined wall, to drop away from the same when the presser is moved away, and thereby prevents the clothes sticking to the plate.

The operation of the machine is as follows: The clothes are placed in the casing in front of the presser. As the presser is drawn back the plunger enters the chamber *c* and drives the water before it into the inlet-opening *b* of passage *a*, and through said passage to the other end. It thence rises through exit-opening *b'* and meets the mass of clothes from behind and below, thoroughly saturating and permeating them and moving and turning them over, in fact producing a beneficial loosening-up and agitation of the mass. The presser then comes forward and squeezes the clothes, the water passing through it freely. Then the presser withdraws and the plunger forces more water around behind the clothes, again turning them over and loosening them up. Thus a constant and beneficial agitation is maintained, which thoroughly cleanses without injuring the clothes.

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

An improved washing-machine consisting of a casing having a bottom passage provided with an upwardly and backwardly curved outlet for discharging the water in a solid stream upon the clothes, a presser and plunger at opposite ends of the casing and a slotted connection between the same, a rock-shaft having a crank-arm extending into the slotted connection, and an abutment-plate H at the presser end of the casing, said plate having its inner wall inclined upwardly and inwardly to prevent the clothes sticking, substantially as herein described.

In witness whereof I have hereunto set my hand.

JOEL S. BLOOD.

Witnesses:

WILLIAM PEASLEE,
ENGA CHRISTIANSEN,
W. E. DEWEESE.