

No. 667,184.

Patented Feb 5, 1901.

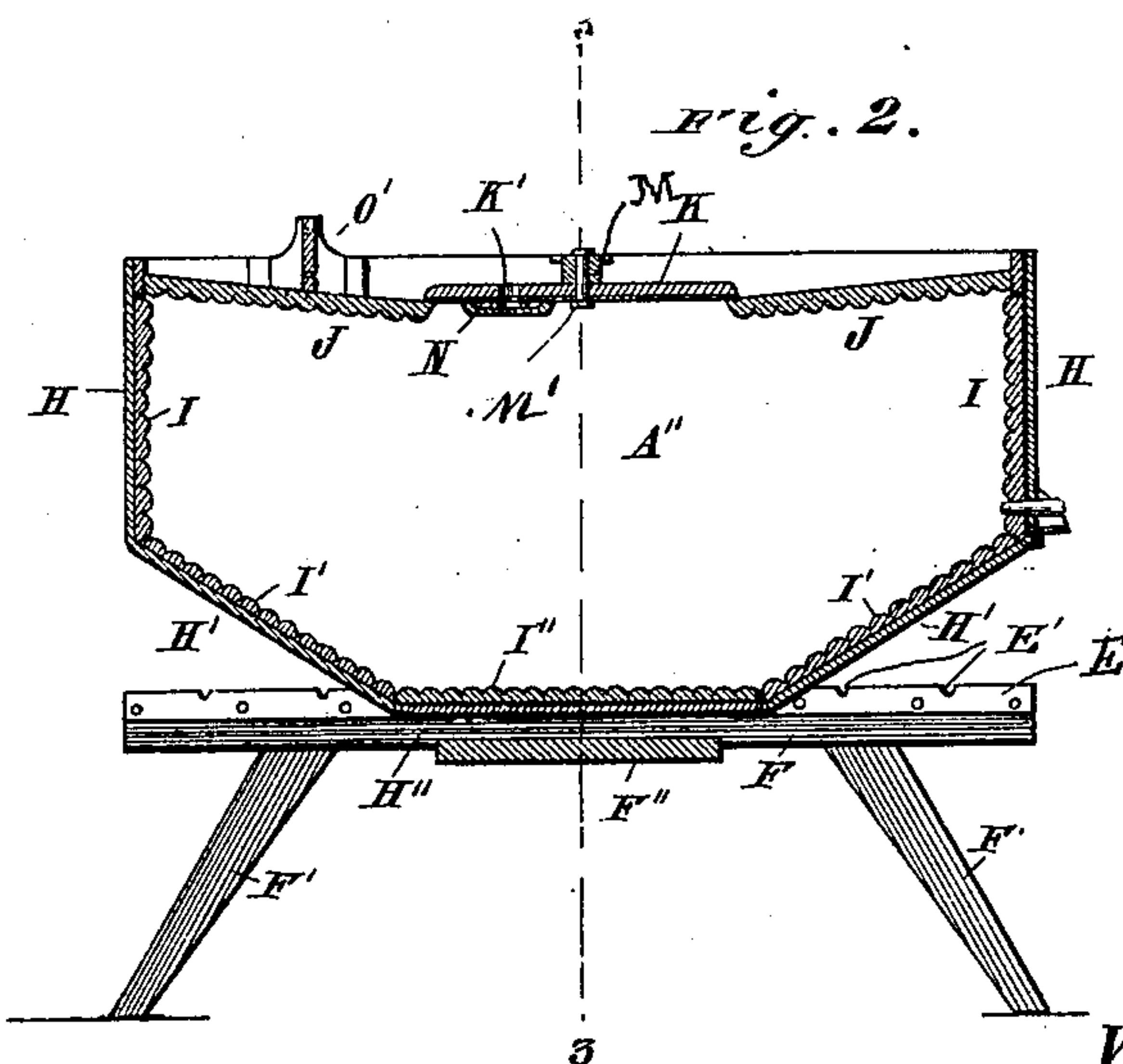
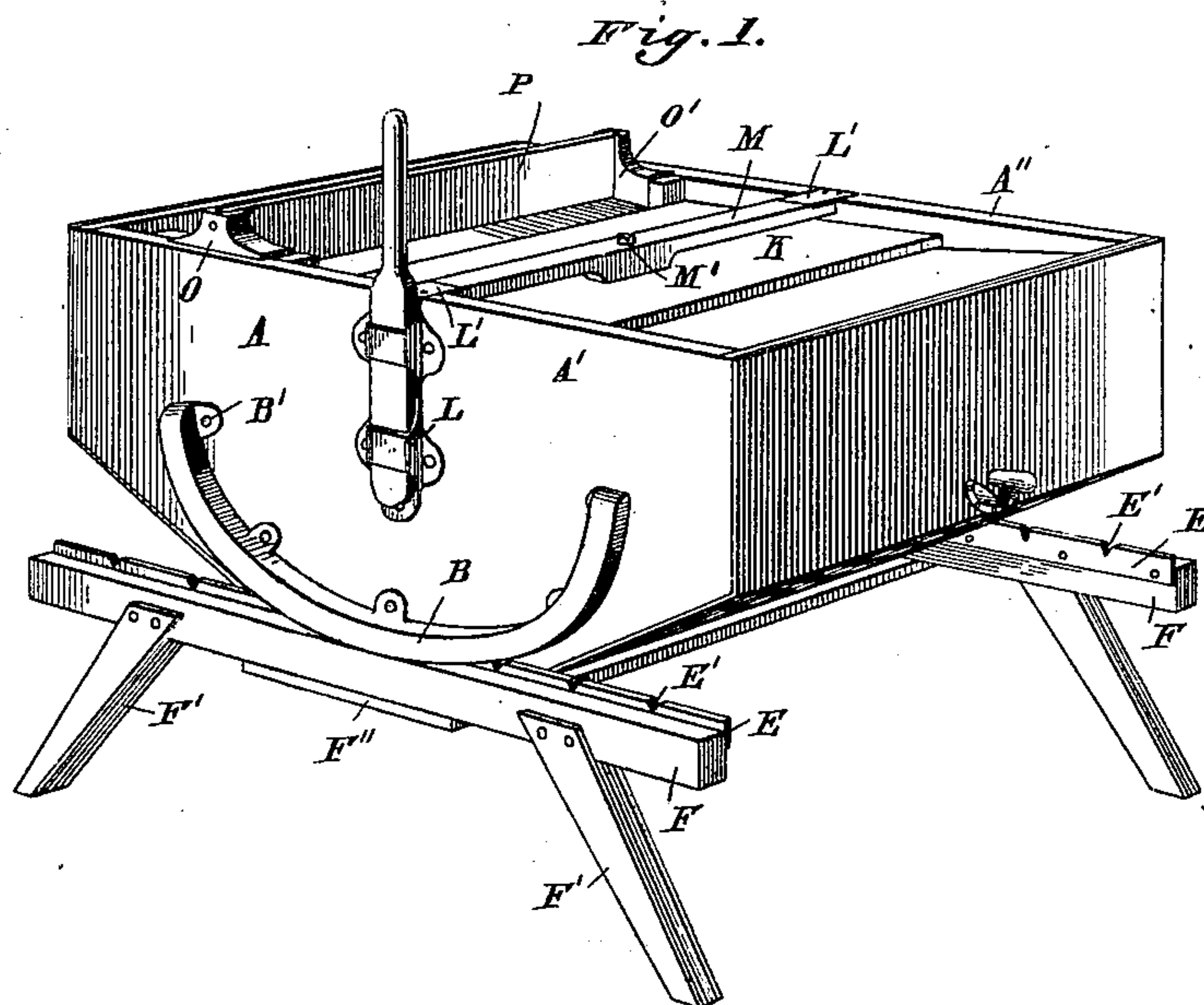
W. E. BISBEE & C. H. SIES.

WASHING MACHINE.

(Application filed Mar. 29, 1898.)

(No Model.)

2 Sheets—Sheet 1.



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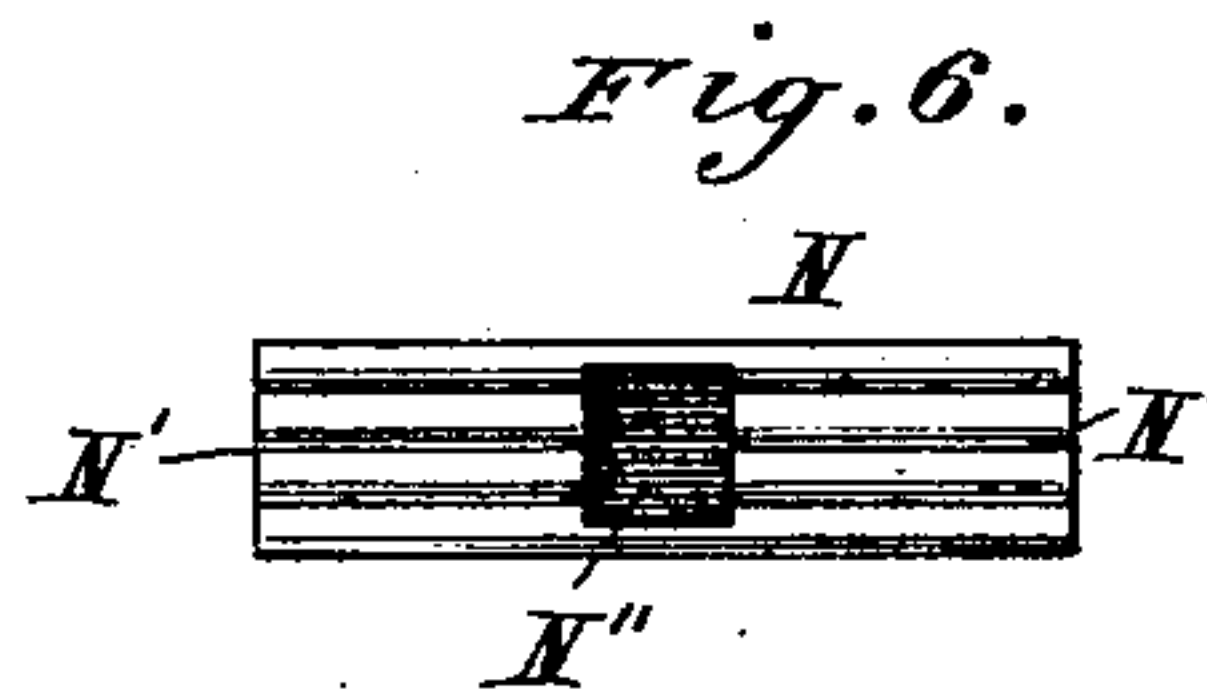
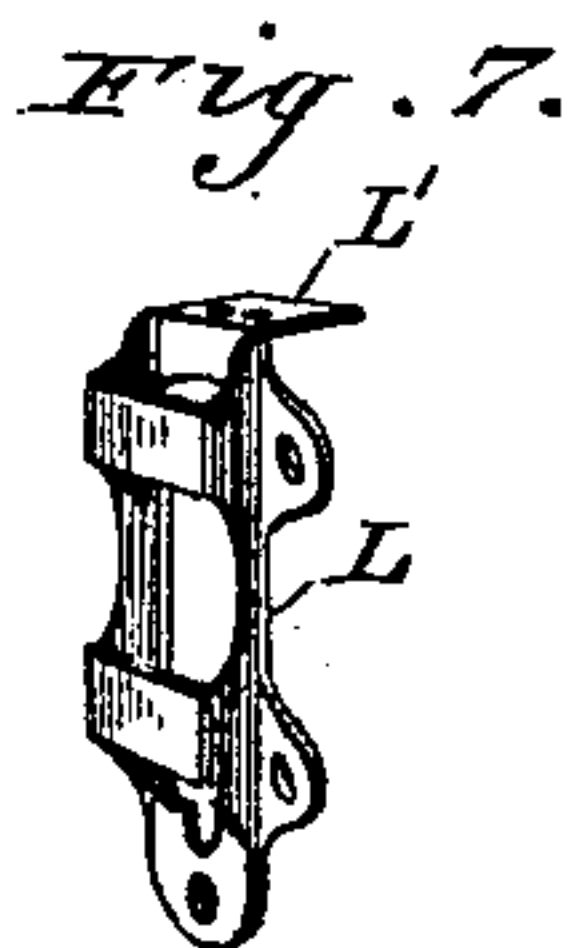
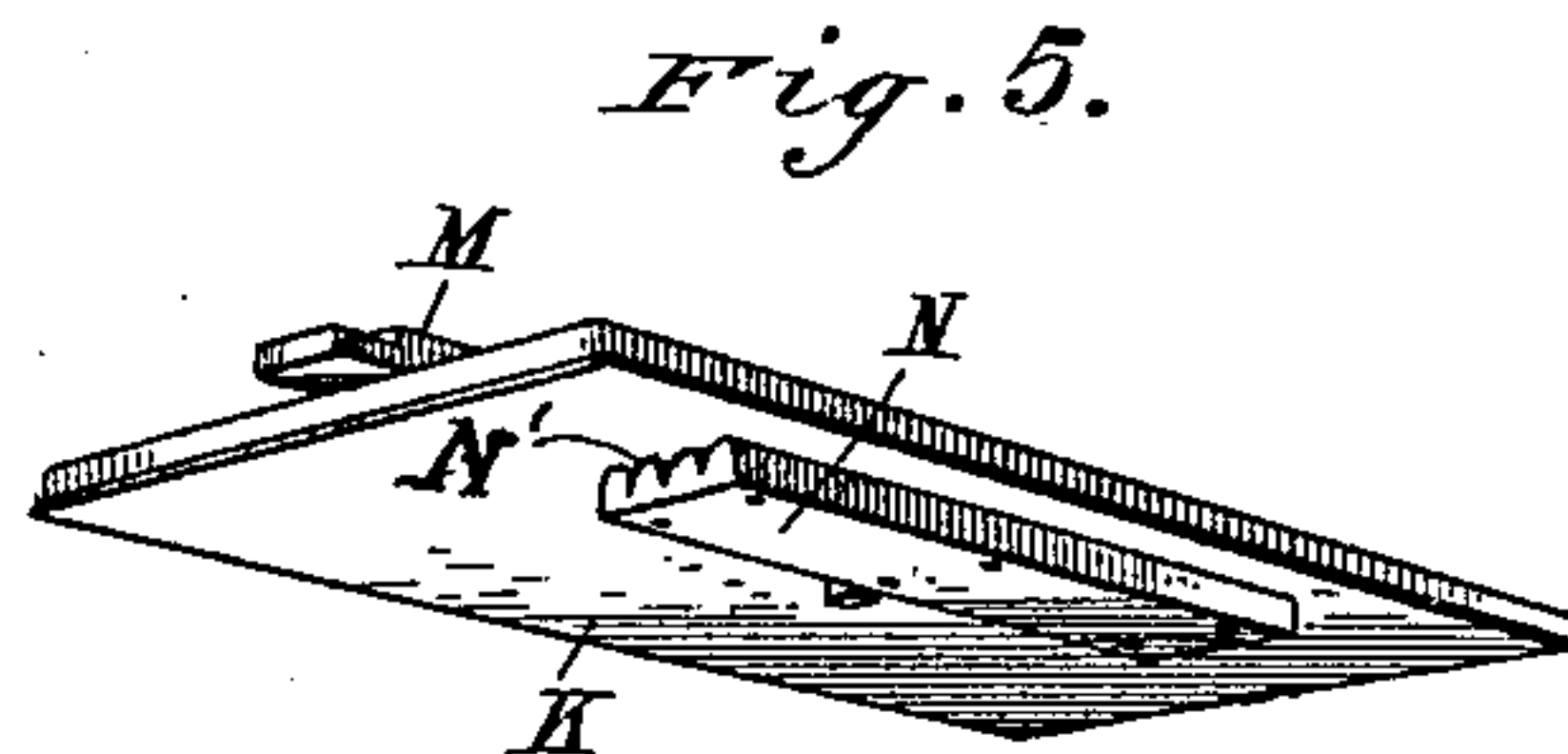
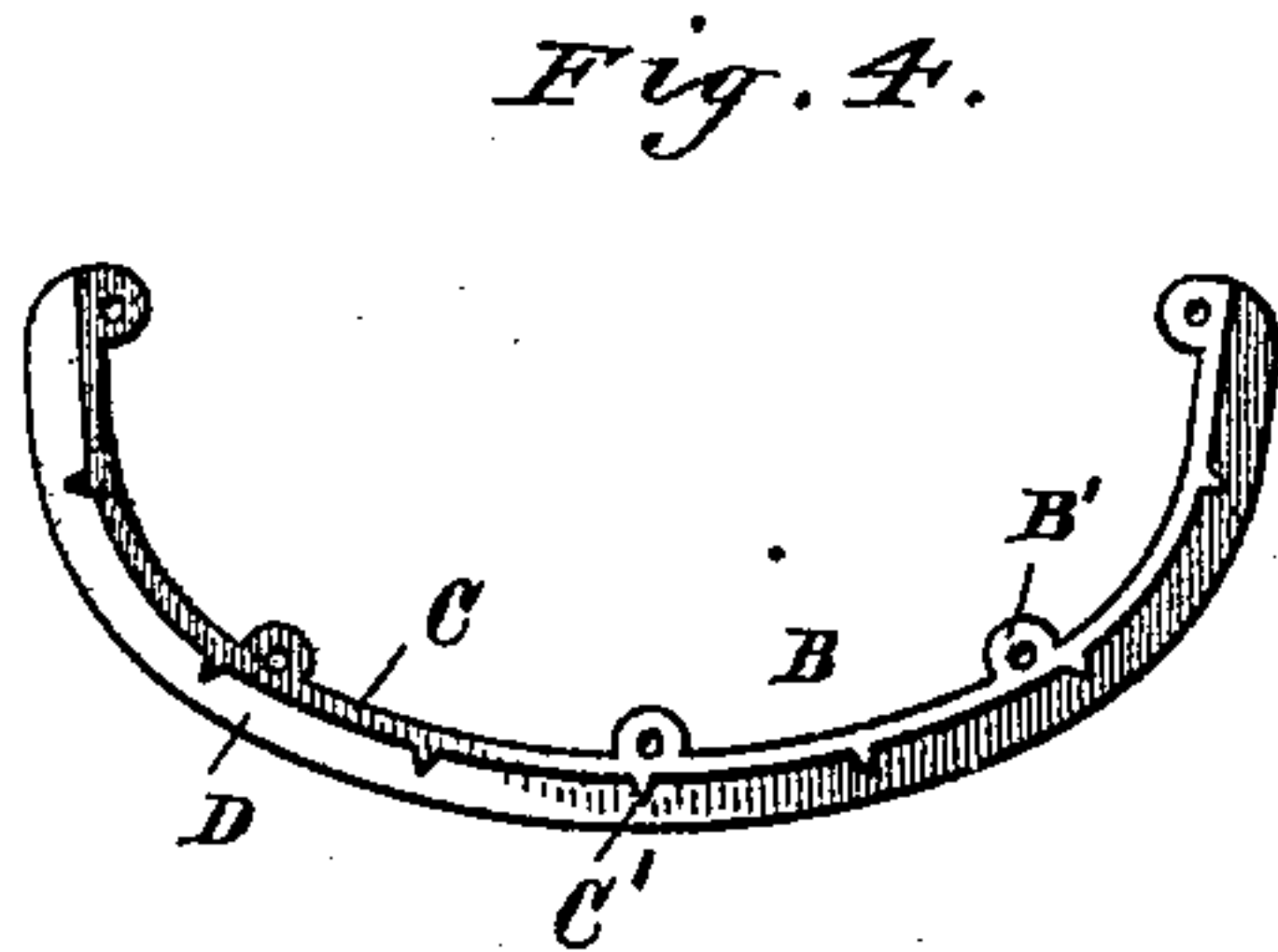
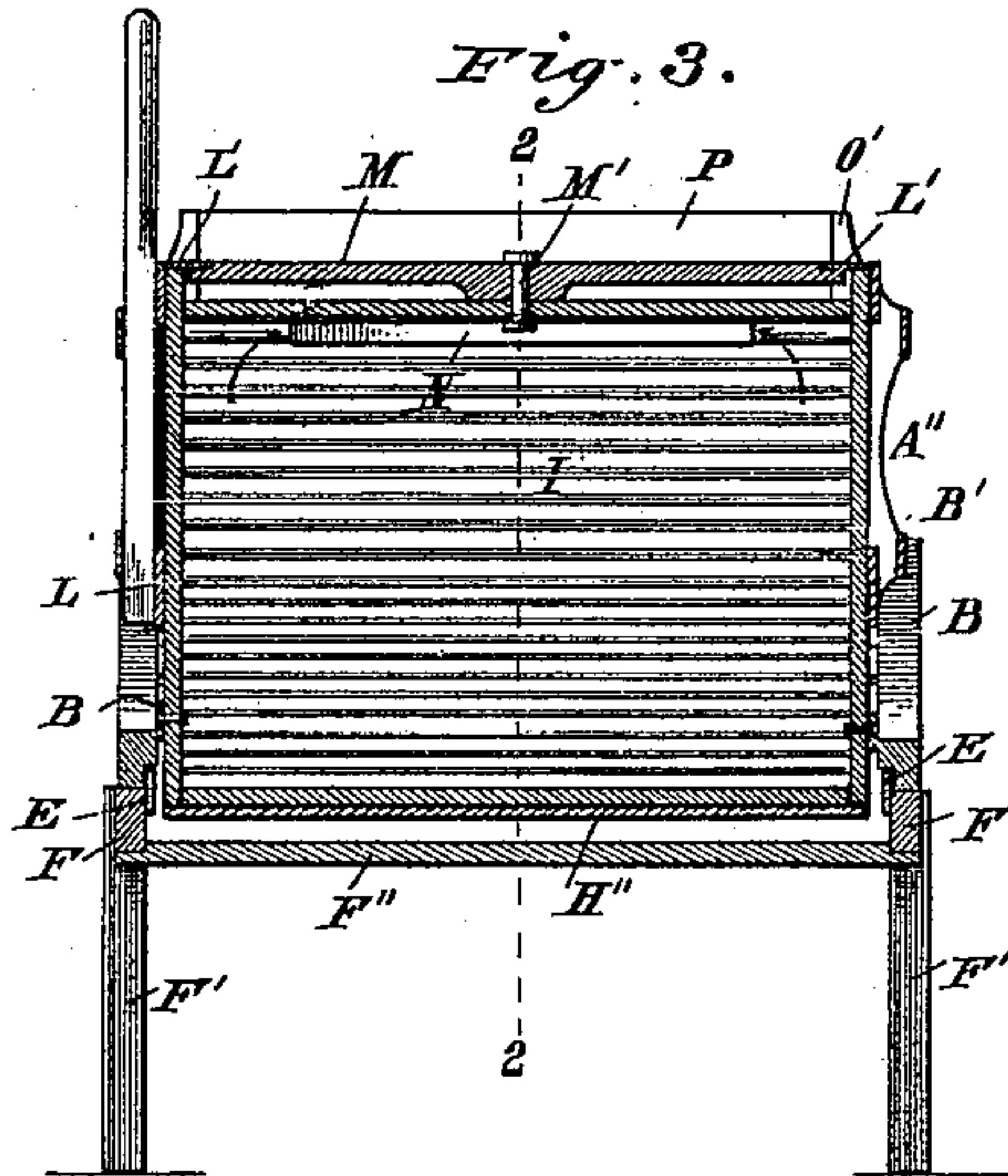
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UNITED STATES PATENT OFFICE.

WILLIE E. BISBEE AND CHARLES H. SIES, OF AMES, IOWA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 667,184, dated February 5, 1901.

Application filed March 29, 1898. Serial No. 675,572. (No model.)

To all whom it may concern:

Be it known that we, WILLIE E. BISBEE and CHARLES H. SIES, citizens of the United States, residing at Ames, in the county of Story and State of Iowa, have invented a new and useful Washing-Machine, of which the following is a specification.

This invention relates to washing-machines, and more particularly to that class of washing-machines known as "rocking" washing-machines, in which the box or body of the machine is generally surrounded by roughened or otherwise prepared rubbing-surfaces and mounted upon rockers on a track or base, the operation of washing being performed by oscillating this box or body containing clothes and duly-prepared water, whereby the clothes are violently agitated and thrown from end to end of the machine into contact with the inner surface of the box or body.

The object of our invention is to generally improve the construction and operation of this class of machines; and with this object in view our invention consists in the improved construction, arrangement, and combination of parts of a washing-machine, whereby the greatest possible extent of rubbing-surface is provided, the clothes brought repeatedly and violently in communication therewith, and the water kept violently agitated and brought repeatedly into contact with and through the clothes, the arrangement being such that the machine can be operated with the least possible exertion and the work be quickly and easily done, all of which will be hereinafter fully described and afterward specifically pointed out in the claim.

In order to enable others skilled in the art to which our invention most nearly appertains to make and use the same, we will now proceed to describe its construction and operation, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view illustrating a machine constructed in accordance with our invention mounted in position for practical operation. Fig. 2 is a vertical longitudinal section on the line 2 2 of Fig. 3. Fig. 3 is a vertical transverse section on the line 3 3 of Fig. 2. Fig. 4 is an inside elevation of one of the metallic rockers removed from the ma-

chine. Fig. 5 is a detail perspective view of the cover or lid of the machine detached looking at the under side. Fig. 6 is a top plan view of the air-vent attachment removed from its position under the cover. Fig. 7 is a detail perspective view of the handle-socket detached from the machine.

Like letters of reference mark the same parts wherever they occur in the various figures of the drawings.

Referring to the drawings by letters, A indicates the box or body of the machine, which is provided on each end with a metallic rocker B, secured to the body by means of screws passing through lugs B', projecting laterally from the rockers. The rockers are angular in cross-section, the tread C lying at right angles to the vertical flange D, the tread being provided on its outer surface with V-shaped teeth C' to engage corresponding notches E' in a plate E, secured to each of the cross-beams F of the supporting-frame. These beams are supported upon legs F' and connected by a cross-board F''. The metallic rockers B are semi-elliptical in form, and in operation the vertical flange D rests upon the beams F, while the tread C rests upon the upper edge of the vertical plate E, the teeth C' engaging the notches E' and preventing the body of the machine from moving longitudinally upon the base, the overhanging of the vertical flanges D over said plates E preventing the lateral movement of the body upon the frame.

The body A of the machine is composed of end boards A' and A'', which are rectangular in shape, with the exception that the lower outer corners are beveled off or cut away. To these ends is secured a single sheet of galvanized metal extending from one outer upper corner, around the bottom and sides, to the other upper outer corner, said sheet being bent to follow the outline of the end pieces A' and A'', as clearly shown at H H, H' H', and H'' of Fig. 2. The sections H H are vertical and are lined with vertical rubbing-boards I I, the section H' being inclined inward and lined with rubbing-boards I' and the section H'' horizontal and lined with the rubbing-boards I'', all of the rubbing-boards being ribbed on their inner surfaces, as clearly shown. The two top sections J J are also

ribbed on their inner sides, while the removable lid or cover K is lined with galvanized metal to prevent rusting of the metal or warping or twisting of the wood. All of the rubbing-surfaces are made removable for the purpose of cleaning and renewal, if necessary.

L indicates the handle-socket secured to the side A' of the machine and provided with an inwardly-bent upper end L', overhanging the inner upper edge of the end piece, a similar socket with overhanging upper end being also secured to the other side board A''.

By providing the suds-box with a socket upon each side the handle can be inserted in either socket, thus permitting of the machine being operated from either side, and by forming the upper end integral with the socket a much stronger lock is secured for holding the lid in position, owing to the difficulty of getting screws or other fasteners to hold a separate lock upon the narrow edge of the side of the suds-box without the danger of splitting the side of the box.

A locking-bar M is mounted upon the upper side of the lid or cover K on an upright pivot M' in proper position when turned parallel with the length of the cover to engage under the overhanging end L' of the handle-sockets and securely lock the lid or cover in position. The under side of the bar M is recessed or cut away from each end nearly to the middle, whereby the ends may be bent or sprung down a little to pass under the locks, and thus hold the lid tightly against the top sections J. By making the lid a trifle wider than the distance between the adjacent edges of the top sections, so as to rest thereon when in position, no other support for the lid is necessary. A vent-hole K' is provided in the cover K to permit the escape of foul air from the interior of the body of the machine, and in order that water may not escape at the same time this vent is guarded on the inside by a piece of metal or wood, as at N, secured

to the under side of the lid, as shown in Figs. 2 and 5. This guard N is grooved at N' on its upper surface next to the under surface of the cover, said grooves extending from each end of the guard to a central recess N'' directly under the vent-opening, so that while there is free communication through the vent-hole, the recess N'', and the grooves N' to permit the passage of foul air from the inside of the machine the guard will prevent the water splashing through the vent-hole.

Brackets O and O' are secured to the sides A' and A'' and are provided with vertical slots to receive a board P, upon which a wringer may be secured, so that the board and wringer together may be readily placed in position upon the machine when required and as readily removed without the necessity of adjusting the clamping mechanism of the wringer at each removal or replacement.

The construction of our improved washing-machine will be readily understood from the foregoing description, and the advantages attending its operation will be apparent to all skilled in the art.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent of the United States, is—

In a washing-machine, the combination with a support, of a rocking suds-box mounted thereon, a socket secured to each side thereof, the upper end of which is bent inward and extends beyond the inner surface of the side to which it is secured, a handle removably secured in one of said sockets, a lid for said box, and a locking-bar pivotally secured to the top thereof, the ends of which pass under the inwardly-projecting upper ends of the sockets, substantially as described.

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