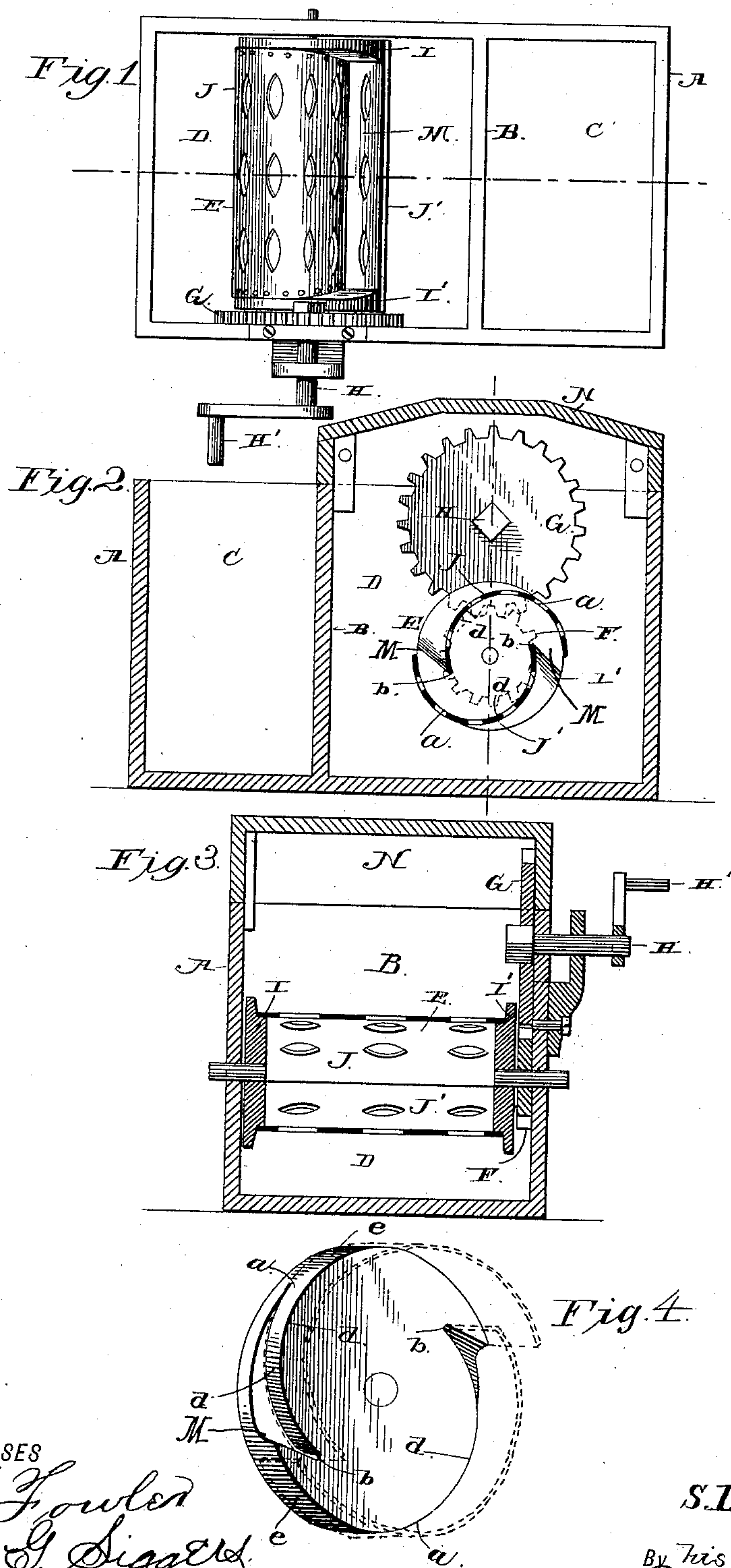


(No Model.)

S. DANIELSON.
WASHING MACHINE.

No. 333,610.

Patented Jan. 5, 1886.



WITNESSES

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UNITED STATES PATENT OFFICE.

SAMUEL DANIELSON, OF PITTSVILLE, MISSOURI.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 333,610, dated January 5, 1886.

Application filed June 22, 1885. Serial No. 169,423. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL DANIELSON, a citizen of the United States, residing at Pittsville, in the county of Johnson and State of Missouri, have invented a new and useful Improvement in Washing-Machines, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to washing-machines, and has for its object to provide a machine of this character, which will effect a more rapid and thorough cleansing of the clothes, with less expenditure of time and labor.

With this end in view, the invention consists in certain details of construction and combination of parts, as will be hereinafter set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of my improved washing-machine. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is a transverse section. Fig. 4 is a detail view of end of the cylinder.

Like letters are used to indicate corresponding parts in the several figures.

Referring to the drawings, A designates the casing or suds-box, divided by a partition, B, into two compartments, C D, the smaller compartment, C, containing a sufficient quantity of water, in which the clothes may be soaked before they are washed. Within the compartment D is journaled a cylinder, E, the construction of which will be presently described. On one of the journals of this cylinder is mounted a pinion, F, which meshes with a spur-gear, G, provided on the inner end of a shaft, H, the latter being mounted in a bearing at the upper end of one of the sides of the box, and carrying a crank or operating-handle, H', on its outer end. Motion being imparted to the handle, the shaft is revolved, causing the rotation of the gear G, which transmits motion to the cylinder by engaging with its pinion F. The cylinder E comprises the ends or heads I I', to which are secured the semicircular sections J J'. The heads I I' have their inner faces cut out from a point, a, at the circumference or periphery, in a curved line to the point b, which is on one side of the center of each head, thus forming corresponding shoulders, d, to which the ends of the semicircular sections J J' of the cylinder are at-

tached. The manner of securing these sections to the heads may be readily understood. As the cut-out portion of the head is on each side of the center thereof, a space is left on the periphery of each head, as at e, and to this portion e of the heads one half of the sections J J' are secured, the remaining half of each section being bent or turned inward over the shoulders d, and nailed or otherwise secured thereto. It will be observed that by this connection, the ends of one section, J, reach the other section, J', and extend inward beyond and below the same. In this manner one section will extend partly into the other section, so that the clothes will be allowed to pass from one section of the cylinder to the other without escaping from the same. Each section of the cylinder is provided with openings or perforations, as shown, to allow the escape and passage of the water to and from the cylinder. It will be seen that one end of each section is arranged at a greater distance from the center of the head than the other end, thus leaving a space, M, at the point where one section meets the other, this space admitting the water to the interior of the cylinder as it is revolved, and allowing the introduction and withdrawal of the clothes from the cylinder.

N designates a cover, provided with depending arms, which are adapted to engage the corners of the compartment D, and hold the cover in place, which cover prevents the water from splashing over the sides of the box.

The operation of my invention is as follows: The clothes are introduced into the cylinder E through the space M, left between the sections J J', and rest upon either one of the latter. By turning the crank or handle motion is imparted to the cylinder, causing it to revolve within the compartment D, which is supplied with a sufficient amount of water. As the cylinder revolves through the water, the latter is forced through the space M between each section J J' upon the clothes, and is allowed to egress through the perforations of each section. In operation, when the section J' has reached the lowest point of its revolution, the clothes within the same are received upon this section. As the cylinder continues to revolve, the section J' is carried upward, and the clothes thereon are caused to drop within and be re-

ceived upon the section J. In this manner the contents of the cylinder will be thrown from one side to the other, thereby creating a constant agitation of both the clothes and the water. The peculiar arrangement of the two sections J J' is such that while the cylinder is being revolved in the proper direction the clothes cannot escape through the space M, but when turned in the reverse direction the contents of the cylinder are thrown out through the space M. Thus when the operator has sufficiently washed the clothes, by turning the crank backward he can expel the clothes from the cylinder. The space M, in connection with perforated sections of the cylinder, allows the water to have a free circulation into the cylinder through the clothes, and thus aid in cleansing them to a great extent.

The compartment C in the box provides a receptacle in which the clothes may be soaked preparatory to washing the same. In some cases I may wish to use this compartment to rinse the clothes, and may, as circumstances require, attach any ordinary wringer to the box.

The peculiar construction of the cylinder is a point on which I lay special claim. The arrangement of the two sections of the cylinder is such that the water is forced into the interior thereof as the cylinder is revolved, and the clothes transferred from one section to the other, as before stated. In this manner I provide a continual agitation of clothes, in connection with a free circulation of the water, thereby effecting a more thorough and rapid washing of the clothes than has hitherto been accomplished.

Having described my invention, I claim—

1. In a washing-machine, the suds-box, in

combination with a cylinder revolving within the same and comprising two sections, perforated, as described, said sections having free communication with each other, and each constructed to hold the clothes, whereby the cylinder when in operation causes the transfer or throwing of the clothes from one section to the other, as set forth.

2. In a washing-machine, the suds-box, in combination with the cylinder revolving therein and comprising heads or ends and semicircular perforated sections secured to the heads, said sections having one end set farther away from the center of the heads than the other end, as set forth.

3. In a washing-machine, a suds-box, in combination with a cylinder revolving therein and comprising two perforated semicircular sections, a space being left between the meeting ends of each section, as set forth.

4. In a washing-machine, the suds-box, in combination with a cylinder revolving therein and comprising heads or ends, and curved shoulders formed on the heads from the periphery to one side of the center, and semicircular perforated sections having a portion of their ends secured to the periphery of the heads and the remaining portion bent over the shoulders, a space being left between each section at the point where one end of one section meets the end of the other section, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

SAMUEL DANIELSON.

Witnesses:

J. JEWELL,

WILLIAM C. TAYLOR.