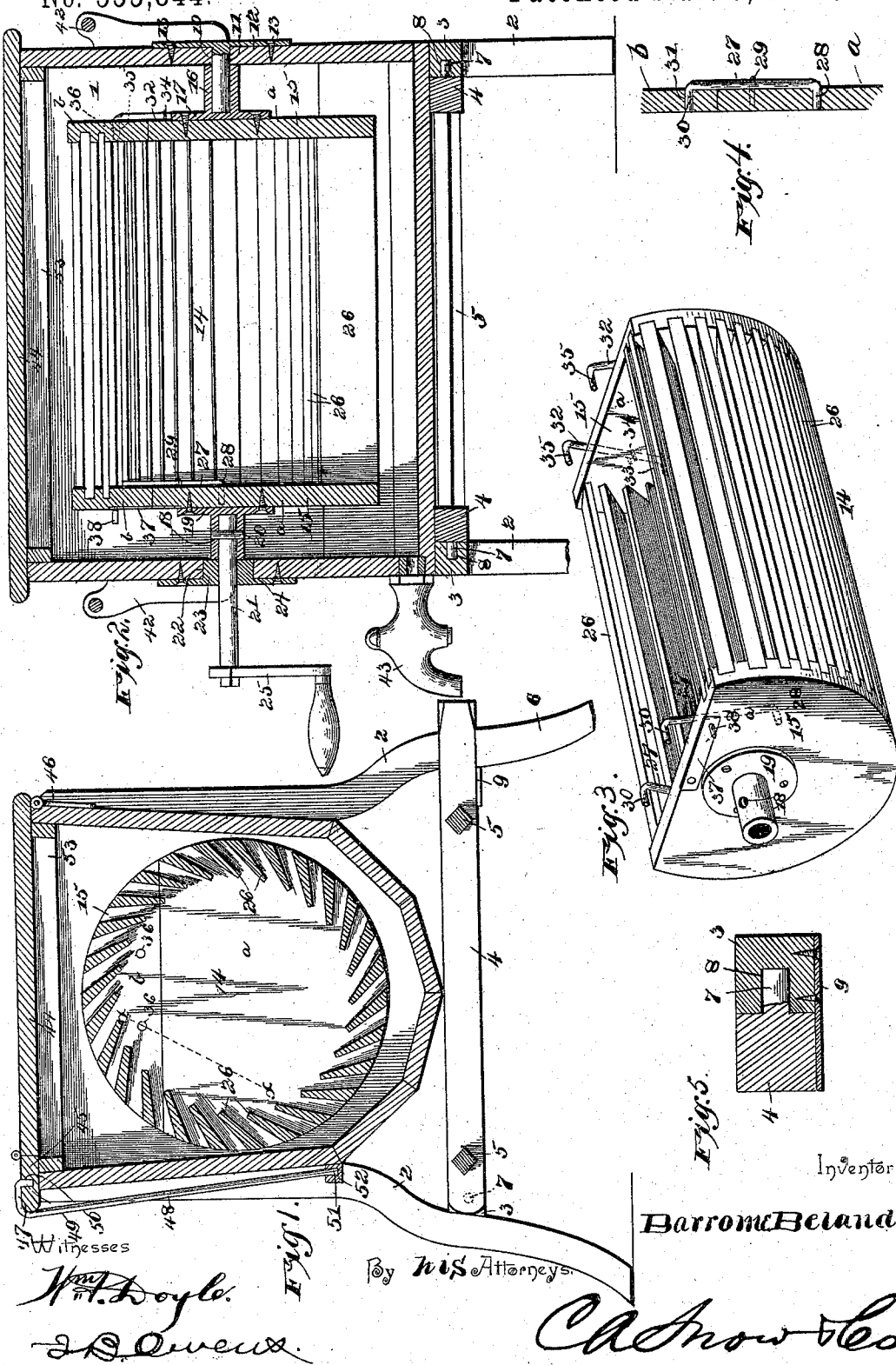


(No Model.)

B. BELAND.
WASHING MACHINE.

No. 555,844.

Patented Mar. 3, 1896.



UNITED STATES PATENT OFFICE.

BARROME BELAND, OF MENOMINEE, MICHIGAN.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 555,844, dated March 3, 1896.

Application filed June 21, 1894. Serial No. 515,284. (No model.)

To all whom it may concern:

Be it known that I, BARROME BELAND, a citizen of the United States, residing at Menominee, in the county of Menominee and State of Michigan, have invented a new and useful Washing-Machine, of which the following is a specification.

This invention relates to washing-machines employing a revolving cylinder; and it has for its object to provide an improvement in the cylinder whereby the separate parts thereof shall be conveniently and securely fastened together.

To this end the invention consists in certain novel features of construction hereinafter fully described and claimed.

In the drawings, Figure 1 is a cross-section of a washing-machine equipped with the improvement set forth in this application. Fig. 2 is a longitudinal section of the machine. Fig. 3 is a detail perspective of the cylinder with its door-section removed. Fig. 4 is a detail section on the line *x x* of Fig. 1, and showing the method of securing the door-section of the cylinder to the main portion thereof. Fig. 5 is a detail sectional view illustrating the manner of securing the tub-rack to the body of the machine.

The reference-numeral 1 indicates the body of the machine, having the legs 2, connected by the braces 3, which also support the usual tub-rack. The tub-rack consists of two longitudinal beams 4, connected by means of the transverse braces 5, and secured to one end of the beams 4 are the legs 6, which support the frame or rack when extended. At their ends opposite the legs 6 the beams 4 are provided with the trunnions 7, which are loosely seated in the grooves 8 of the braces 3. The grooves 8 are formed on the inner side of the braces 3, which have rigidly secured to their lower sides, near one end, the inwardly-projecting lugs 9, which engage the lower sides of the beams 4 and assist to support the same when said beams are moved under the body of the washing-machine.

Formed in one end of the body is the opening 10, which receives the spindle 11 of plate 12, which is secured to the outer side of the body by the screws 13, which pass into the

14 indicates the cylinder, and this consists of two heads 15, formed in two sections *a* and *b*, and comprising, respectively, the main portion of the cylinder and the lid or removable door portion thereof. The section *a* is the main portion and is provided at the axial point of the complete cylinder and at one end with the bearing-tube 16, formed integral with the base-plate 17, by which plate it is secured to the cylinder, and said tube 16 is adapted to receive the said spindle 11 of the plate 12 and by such means to form a bearing for the end of the cylinder to which it is attached. The opposite end of the cylinder is provided with a tube 18, similar to the tube 16 and formed integral with the base-plate 19, which is in turn secured to one end of the cylinder and centrally thereon. Secured within the tube 18 by means of the pin 20 is the shaft 21, which carries at its outer end the crank 25.

Formed in one side of the body 1 and longitudinally aligned with the opening 10 is the opening 22, which receives a boss 23, in which turns the shaft 21 and which is formed integral with the plate 24, secured to the outer side of the body.

The improvement claimed in this application forms a part of the cylinder 14, the heads 15 of which are connected to each other by means of the slats 26, which are disposed at a tangent to the center of the cylinder, so that the water in surging in and out thereof will be more effectually agitated. Rigidly secured to the inner side of one end of the cylinder and on the section *a* are the catch-wires 27. These wires are secured in place by the studs 28 formed integral with the lower ends thereof and by the staples 29, which embrace the catch-wires at about their middles and which pass into the head of the cylinder. The upper ends of the catch-wires 27 project beyond the straight edges of one of the heads 15, and said upper ends are provided with the studs 30, which project outwardly from the main portion and for a distance equal to about the thickness of the heads 15. These studs 30 are adapted to pass through the openings 31 in one end of the section *b*, whereby the two sections of the cylinder are connected to each other. The end of the cylinder opposite the wires 27 is provided with the catch-wires 32,

which are similar to the catch-wires 27 and which are secured in place by the lugs 33 and staples 34.

The catch-wires 32 are arranged on the outer side of one head 15 and project above the straight edge of such head, and at their upper ends the wires 32 are provided with the inwardly-extending studs 35. The studs 35 are similar to the studs 30 of the wires 27 and project in the same direction. Both the wires 27 and the wires 32 slant inwardly from their lower ends, so that their upper ends will be nearer each other and nearer the center of the cylinder than their lower ends. The studs 35 are adapted to fit into the openings 36 in one end of the section *b* and by these means to connect the right-hand end of the cylinder to its removable door-section.

The section *b* of the cylinder is prevented from accidental displacement on the catch-wires 27 and 32 by means of the swinging fastening-plate 37. This plate 37 is pivoted to one end of the cylinder and on the section *a* and is adapted to swing into engagement with the section *b* of the left-hand head, a stud 38 being provided by which it may be grasped and its manipulation effected. Thus it will be seen that when the plate 37 is turned against one end of the section *b* it will be impossible for the removable door-section of the cylinder to be displaced. On the other hand by disengaging the plate 37 from the door-section *b* said door-section of the cylinder may be moved longitudinally to disengage it from the catch-wires 27 and 32.

While I have described the particular improvement claimed, other minor features illustrated in the drawings will be briefly referred to.

42 indicates a pair of handles at each end of the body, and 43 designates a cock which communicates with the lower portion of the body, so that every particle of the water may be withdrawn when so desired.

The upper end of the body is formed open and provided at one side with the longitudinal cleat 45, to which the lid 44 is hinged, said lid having the usual flange 53. The lid 44 is provided with the hook and catch 46, and is

adapted to rest when opened on a lid-supporting device consisting of a piece of wire bent to form the horizontal rest portion 47 and the downwardly and inwardly inclined brace portion 48, the inner end of the part 47 being provided with a downwardly-extending stud 49, adapted to engage in the opening 50 of the cleat 45, while the lower end of the brace 48 is formed with a similar stud 51, adapted to engage in the support 52, secured to the lower rear side of the body portion.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

In a washing-machine, a cylinder provided with a removable door-section having catch-openings in the ends thereof, opposite pairs of catch-wires secured fast at one end respectively to the inner side of one head of the main section of the cylinder, and to the outer side of the opposite head of the main section of the cylinder, said catch-wires being projected at their free ends beyond the straight edges of the heads of the main section of the cylinder and provided at such ends with angled catch-studs adapted to removably engage in the catch-openings in the ends of the removable door-section, the said catch-studs of both pairs of wires being disposed in the same direction whereby the removable door-section must be moved longitudinally to be engaged with and disengaged from the studs, and a swinging fastening-plate 37, pivoted at one end to one of the heads of the main section of the cylinder and adapted to be swung against one end of the door-section to hold the latter in positive engagement with the studs of the catch-wires, substantially as set forth.

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

BARROME ^{his} × BELAND.
mark

Witnesses:

AMOS LEMIEU,
FRANKLIN H. BROWN.