(No Model.)

W. J. REED.

WASHING MACHINE.

No. 318,135. Patented May 19, 1885.

Fig. 1

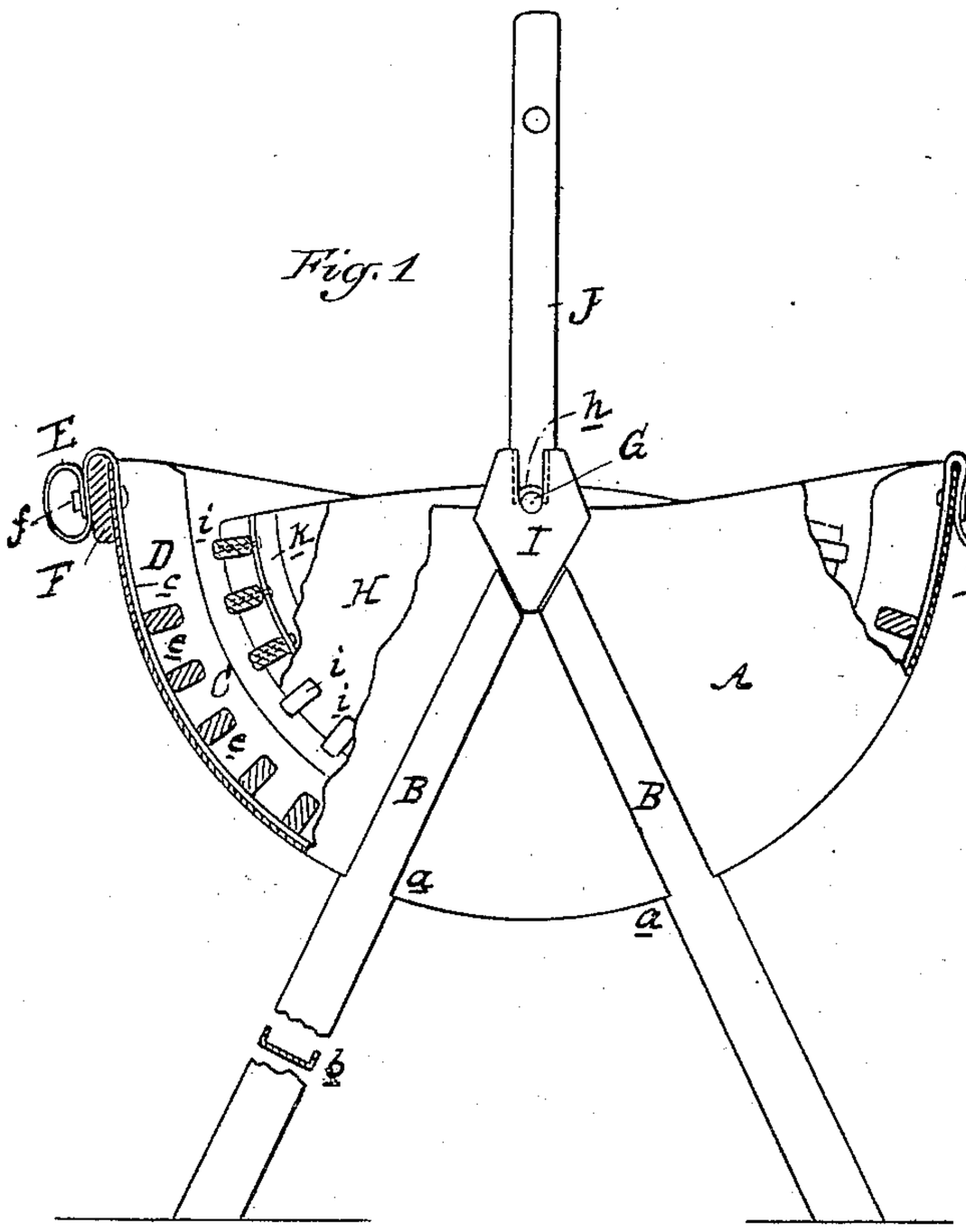


Fig. 2

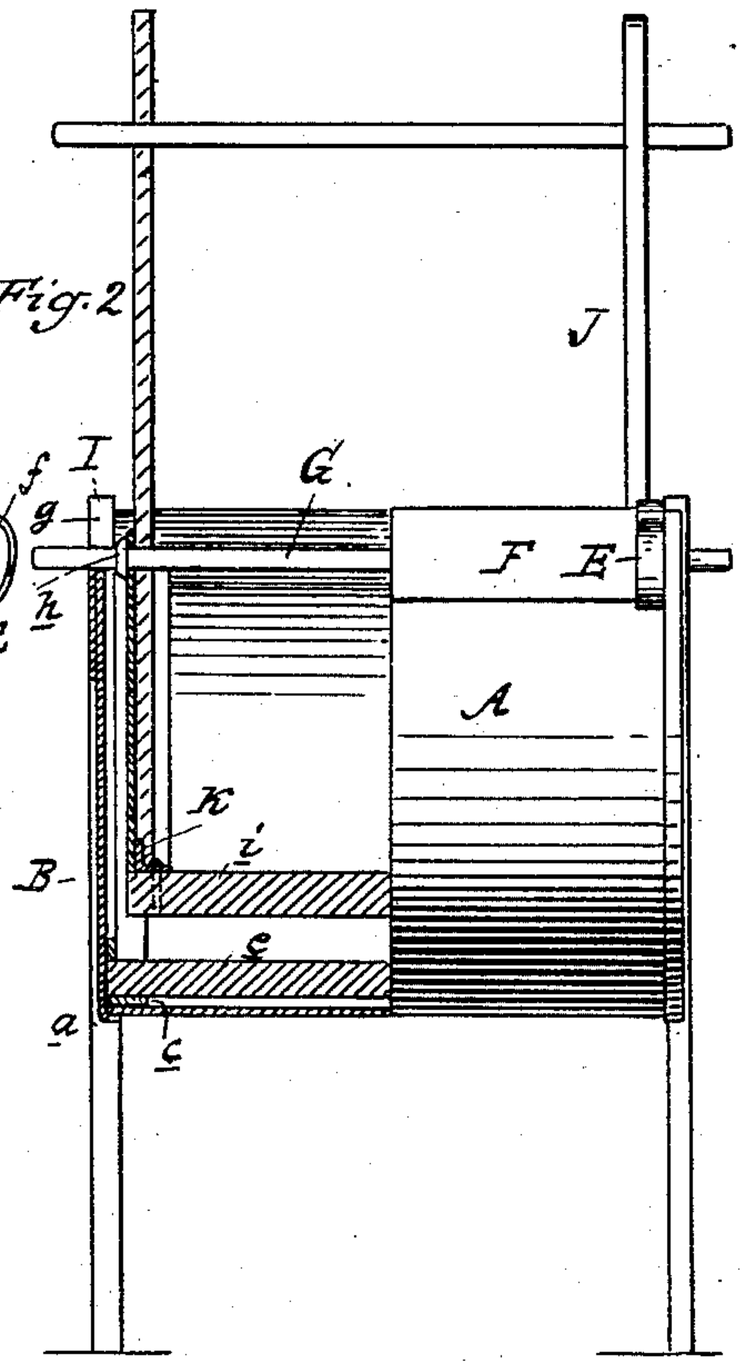


Fig. 3

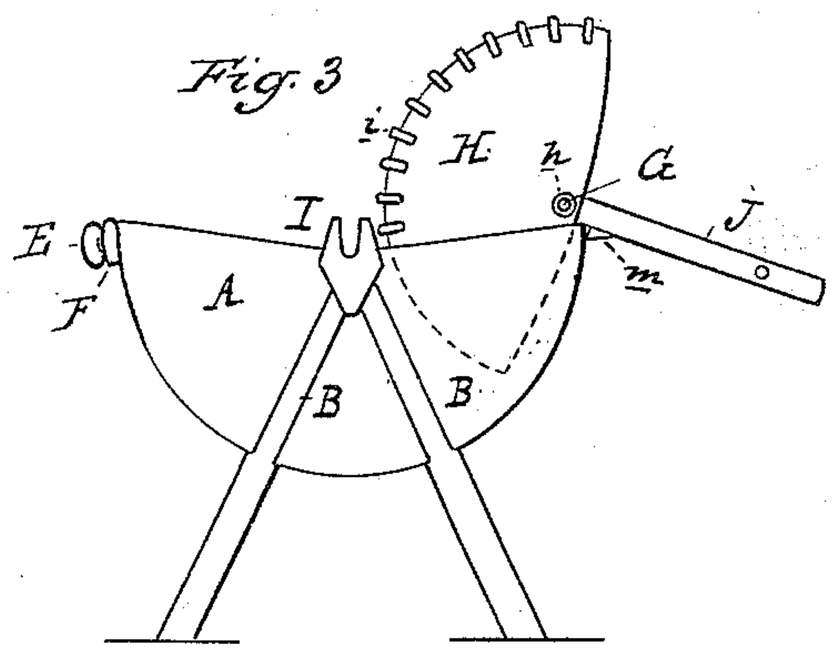
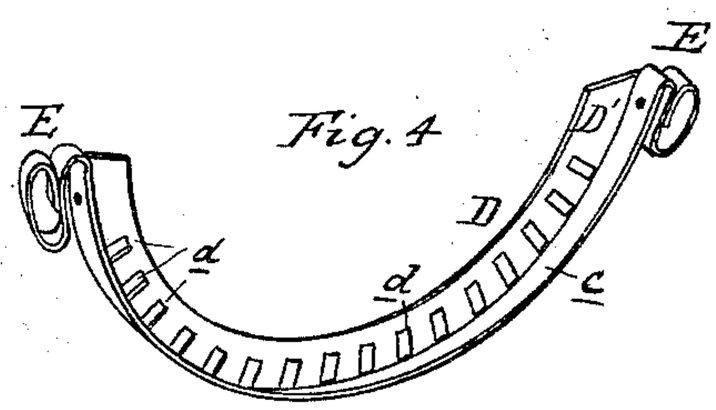


Fig. 4



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UNITED STATES PATENT OFFICE.

WILIAM J. REED, OF ST. JOHN'S, MICHIGAN.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 318,135, dated May 19, 1885.

Application filed August 27, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILIAM J. REED, of St. John's, in the county of Clinton and State of Michigan, have invented new and useful Improvements in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to certain new and useful improvements in the construction of washing-machines, by means of which all or nearly all the difficulties heretofore arising in the use of this class of devices are avoided.

The invention consists in the peculiarities of the construction of parts and their various combinations, all as more fully hereinafter described.

Figure 1 is a side elevation with the side wall partially broken and one of the legs broken out and shown in cross-section. Fig. 2 is an endwise elevation, partly in section. Fig. 3 is an elevation, and Fig. 4 is a detail perspective of one of the segments of the rubber.

In the accompanying drawings, which form a part of this specification, A represents the tub, made in the form of a semicircle, substantially, and of galvanized iron, which experience teaches is far preferable to wood, as the latter, being alternately wet and dry when in and out of use, shrinks and swells, and it is almost impossible to keep it in order. The sides and bottom are soldered together, and the legs B, which support the device, are flat strips of metal soldered on the two sides radially, as shown in Figs. 1 and 3. From the point *a* to the lower extremity of the legs the strip is widened upon each side and bent, as shown at *b*, the flanges caused by such bending of each edge turning inwardly. By this method of constructing and attaching the legs they are rendered perfectly secure in their relation to the body, while at the same time the use of screws or other metal appliances to secure the legs to the body is avoided, as these latter are very apt to become rusted and injure the clothing brought in contact with them.

C is the rubber, which is constructed in the following way: D is a slat-holder, formed of a metallic strip, D′, cut in the form of a segment of a circle, and provided with a flange, *c*, projecting at right angles thereto, and a series of slots, *d*. A pair of these segments is prepared, and the ends of the wooden slats *e* are inserted into the slots, one of the slat-holders being at each end of the slats, which are of the proper length to fit laterally between the two sides of the device. The ends of these slat-holders are bent over into the form of hooks and handles E, as shown in Fig. 1, so that when the rubber, constructed as described, is inserted into the body of the device, the hooks engage with the top thereof, as shown in Fig. 1, and the flanges *c* rest upon the bottom of the tub, so that the slats *e* are not brought in contact with such bottom, but a clear water-space is allowed between the lower edges of the slats and the bottom. This rubber is secured in its position (after being suspended by the hooks) by the small bolts *f*, and these bolts may be detached and the rubber removed at any time when necessary to clean or repair the device, the handles formed at the ends of the slat-holder forming means for lifting the rubber out of the tub.

For greater convenience in attaching a wringer, there may be inserted at one end of the tub a wooden plate, F, extending the whole lateral length of the tub at that point, which will be secured in place by the bolts which secure that end of the rubber in position.

G is a shaft extending laterally across the tub to support the upper rubber, H. The ends of this shaft are journaled in bearings I, which are made of galvanized iron, soldered on the two outer sides, the flanges *g* being turned at right angles to the face of the bearing, as shown in dotted lines in Fig. 1. A semi-spherically-shaped collar, *h*, is secured upon the shaft upon the inner side of each of the bearings, to facilitate the removal of the shaft from the bearings, to prevent side motion of the shaft, and also to prevent its jamming in the bearings. Upon this shaft, and rigidly secured thereto, are the semicircular plates of galvanized iron, the periphery of which is corresponding in curvature to the curvature of the bottom of the tub upon an inside line. Around the circumference of these sides is a series of slots to receive the slats *i*, so that the slats project beyond the edge of the sides. These slats are secured to angle-irons *k*, which pro-

ject inwardly from each of the side plates, and are soldered thereto, the slats being secured to these angle-irons by means of bolts or rivets, which are so countersunk in the projecting edges of the slats as to prevent their being brought into contact with the clothes. Upon the inner face of each of these sides are secured the handles J, and when the upper rubber is removed to allow access to the clothing in the tub, as shown in Fig. 3, these handles are provided with a projecting stop-latch, *m*, so that the upper rubber may be locked in position, as shown in Fig. 3. By this construction it will be seen that a perfectly-tight tub is provided, (not liable to shrinkage and swelling, as in the case of a wooden tub,) and that the parts brought in contact with the clothing are so constructed that no rust or damage can accrue to the clothing from such contact.

I am aware of the Patents Nos. 243,586 and 200,896, and make no claim to the construction shown therein as forming part of my invention.

What I claim as my invention is—

In combination with a tub having a semi-circularly-shaped bottom, a rubber consisting of two segmental non-corrosive slat-holders, D, formed of metallic strips D′, provided with slots and having projecting flanges *c*, and transverse slats *e* passing into said slots, the ends of said flanges *c* being bent over to form hooks and handles, substantially as and for the purposes set forth.

WILIAM J. REED.

Witnesses:
PORTER K. PERRIN,
JAMES REED.