No. 715,322. Patented Dec. 9, 1902.

J. N. URI.

WASHING MACHINE.

(Application filed May 19, 1902.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

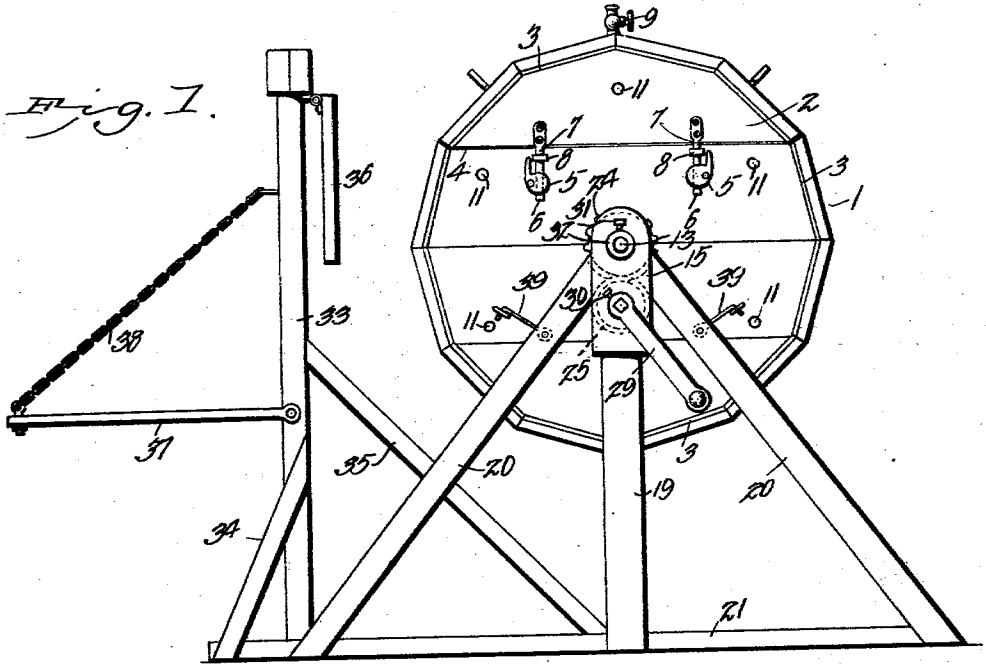
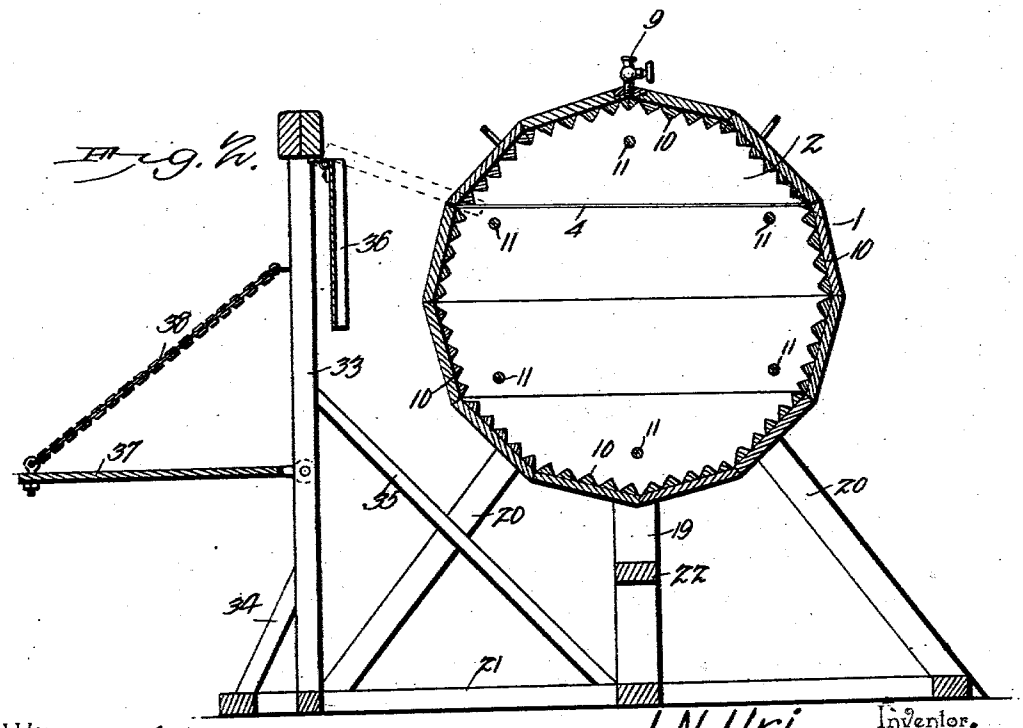


Fig. 2.



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Fig. 3.

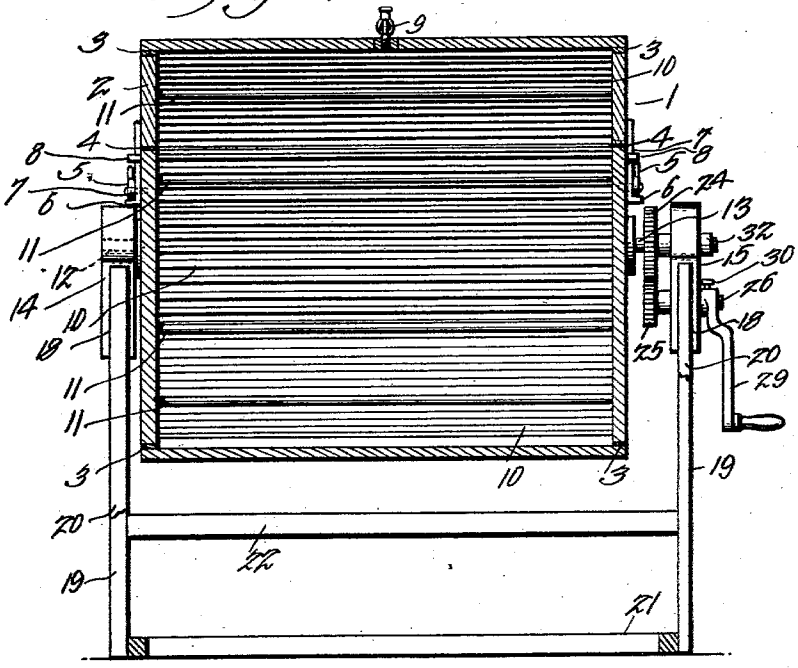


Fig. 4.

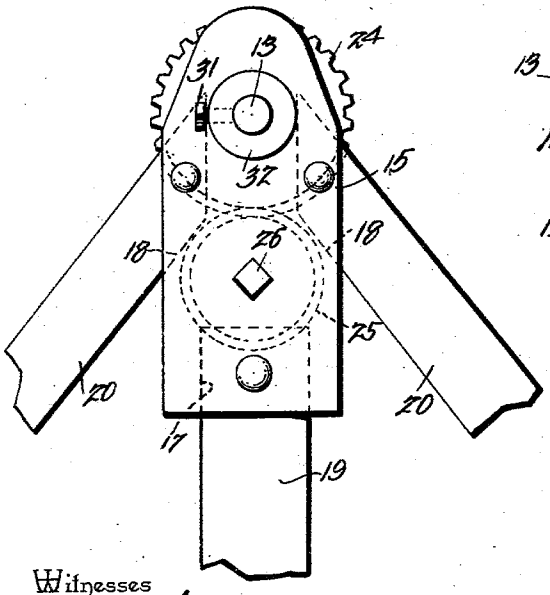
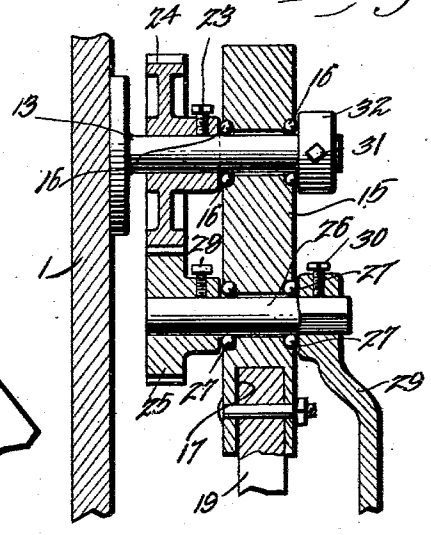


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOSEPH N. URI, OF MAYBERRY, NEBRASKA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 715,322, dated December 9, 1902.

Application filed May 19, 1902. Serial No. 108,012. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH N. URI, a citizen of the United States, residing at Mayberry, in the county of Pawnee and State of Nebraska, have invented a new and useful Washing-Machine, of which the following is a specification.

The invention relates to improvements in washing-machines.

The object of the present invention is to improve the construction of washing-machines and to provide a simple, inexpensive, and efficient one capable of rapidly and thoroughly washing clothes at the expenditure of a minimum amount of labor.

A further object of the invention is to provide a washing-machine of this character capable of effectively operating on a large or small quantity of clothes and adapted to clean the same without wearing, tearing, or otherwise injuring them.

A further object of the invention is to provide a washing-machine adapted to support a wringer in convenient position for use and capable of directing the water expelled from the clothes back into the washing-machine body.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the drawings, Figure 1 is a side elevation of a washing-machine constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a transverse sectional view. Figs. 4 and 5 are detail views illustrating the construction of the gearing and the manner of mounting the same.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a rotary washing-machine body provided with a removable lid or cover 2 and having a polygonal periphery preferably formed by transverse boards secured to the sides or heads of the washing-machine body, strips of rubber 3 or other suitable packing being interposed between the peripheral boards and the edges of the sides or heads of the body to form water-tight joints. Rubber packing-strips 4 are also interposed between the lid or cover and the body to make the washing-machine body perfectly water-tight when the lid or cover is in place. The rubber packing-strips are compressed when the lid or cover is in place by means of cam-levers 5, mounted on the body at the sides thereof, as clearly shown in Figs. 1 and 3, and arranged to engage lugs 6 of plates or catches 7 of the lid. The catches 7 of the lid extend through suitable guides or keepers 8, and the lugs are located beyond the same and are arranged to be engaged by the cam-levers. The cam-levers are adapted to draw the lid or cover tightly on the washing-machine body, and they are capable of being readily thrown into and out of engagement with the lugs. The cover or lid is provided with suitable handles, and it has a valved vent 9, adapted to permit the escape of steam when desired.

The washing-machine body is provided on its interior with a suitable rubbing-surface 10, and it has transverse rods 11 arranged at intervals and forming agitators, which are adapted to be engaged by the clothes, whereby the latter are agitated and tumbled about within the washing-machine body to expose them thoroughly to the action of the hot water and suds, whereby the clothes will be quickly and uniformly washed. The washing-machine body may be provided with any suitable form of rubbing-surface; but the latter preferably consists of triangular bars or strips arranged as set forth. The rods 11, which are suitably secured to the heads, are located adjacent to the rubbing-surface, but are spaced from the same, as clearly shown in Fig. 2.

The washing-machine body is provided at opposite sides with centrally-arranged journals 12 and 13, having attachment-plates at their inner ends, as clearly shown in Figs. 3 and 5, and these attachment-plates are perforated for the reception of suitable fastening devices for securing the journals to the washing-machine body. The journals are arranged in suitable bearings of caps 14 and 15, and each bearing is provided with suitable antifriction devices, such as the antifriction-balls 16; but any other suitable means may be employed. The caps are provided with central and side sockets 17 and 18 for the reception of upright bars 19 and

inclined braces 20 of a supporting-frame, and these upright bars or standards and inclined braces are suitably secured at their lower ends to a horizontal base 21, consisting of side bars and suitable connecting-bars, and the standards may also be supported by a connecting-bar 22.

The journal 13 at one side of the washing-machine body has secured to it by a set-screw 23 or other suitable fastening device a gear-wheel 24, which meshes with a small pinion 25 of a short counter-shaft 26, journaled in a suitable bearing of the cap 15 and supported by antifriction-balls 27; but these may be omitted, if desired. The gear-wheel and the pinion are provided with extended hubs, and the pinion is secured to the counter-shaft by a clamping-screw 28. The outer end of the short counter-shaft is squared to receive a crank-handle 29, which is secured to the shaft 26 by a set-screw 30. The outer end of the journal 13 is engaged by a set-screw 31 of a collar 32, and the set-screws permit the gearing, the crank-handle, and the collar to be adjusted, and as the gearing is located at the inner side of the cap 15 and the collar and the crank-handle are located at the outer side of the same it will be clear that any wear may be readily taken up.

The supporting-frame is provided with an upright end portion 33, composed of side bars and suitable connecting-bars and supported by inclined braces 34 and 35. The upright end portion is adapted to support a wringer, (not shown,) and it has hinged to its top a chute or trough 36, adapted when the lid or cover of the washing-machine is removed to be arranged, as indicated in dotted lines in Fig. 1 of the drawings, to direct the water expelled from the clothes back into the washing-machine body. The hinged trough or chute when not in use is adapted to be arranged in a vertical position, as shown in full lines in Figs. 1 and 2. A platform 37 is hinged at its inner edge to the upright end portion of the supporting-frame and is supported in a horizontal position by chains 38 or other suitable flexible connections, and when not in use it is adapted to be folded up against the upright portion 33 of the supporting-frame. The platform, which is adapted to support a clothes-basket or other receptacle, may be constructed in any desired manner.

The washing-machine body is held stationary when the wringer is in use by means of a pair of hooks 39, mounted on the inclined braces 20 and engaging suitable eyes of the washing-machine body.

It will be seen that the washing-machine is exceedingly simple and inexpensive in construction, that it is easily operated, and that it will enable clothes to be quickly and thoroughly washed and rinsed without tearing or otherwise injuring the fabrics.

What I claim is—

A washing-machine comprising a supporting-frame provided with upright standards and inclined braces, metal caps having central vertical sockets to receive the standards and provided with inclined side sockets to receive the inclined braces, a rotary washing-machine body journaled in bearings of the caps, a shaft journaled on one of the caps and provided with means for rotating it, and gearing connecting the shaft with the adjacent journal of the washing-machine body, substantially as described.

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

JOSEPH N. URI.

Witnesses:

CARL F. HAMPEL,

CLEMENS RUCKER.