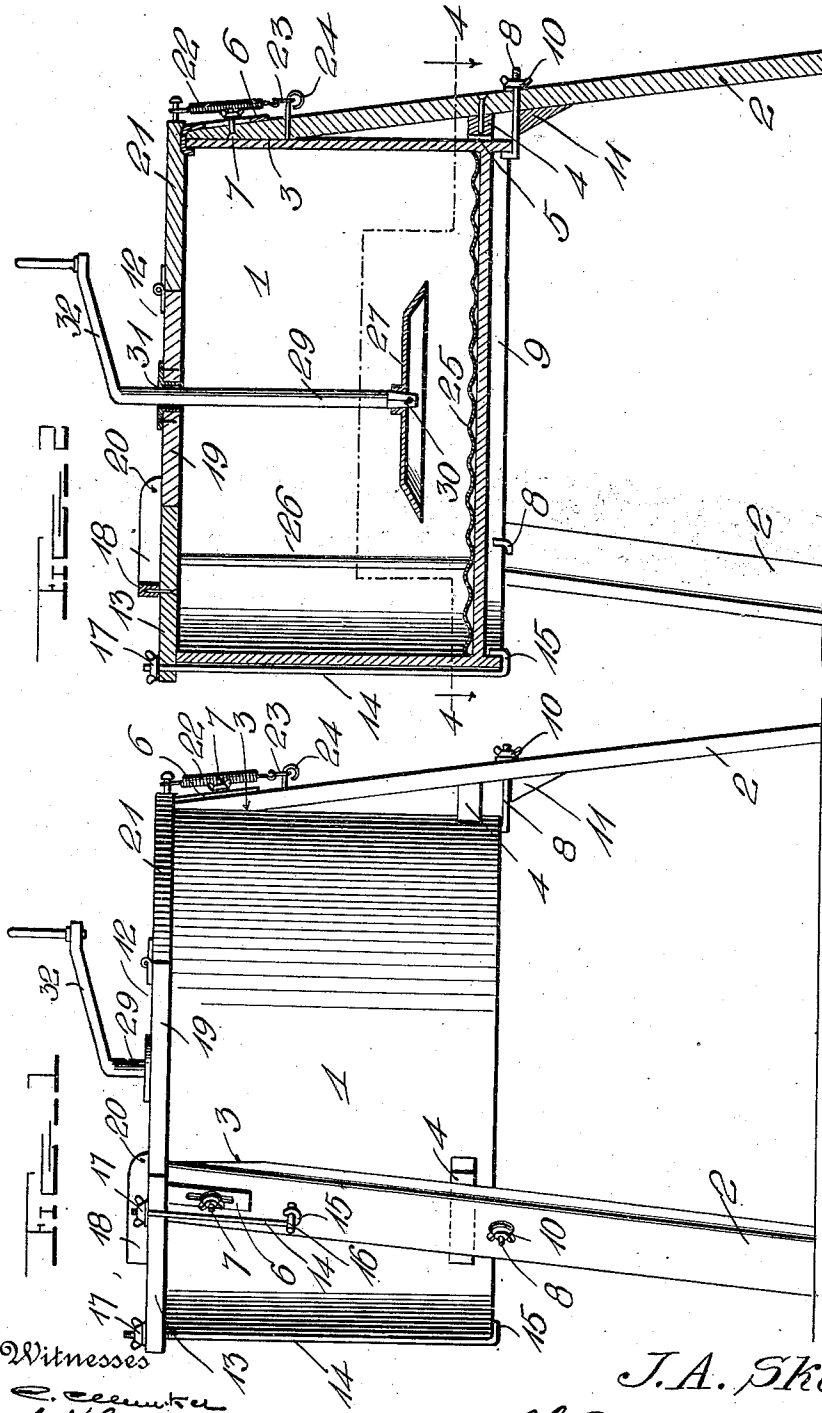


J. A. SKAER.
 WASHING MACHINE.
 APPLICATION FILED MAR. 10, 1910.

991,032.

Patented May 2, 1911.

2 SHEETS—SHEET 1.



Witnesses
 C. E. E. E. E.
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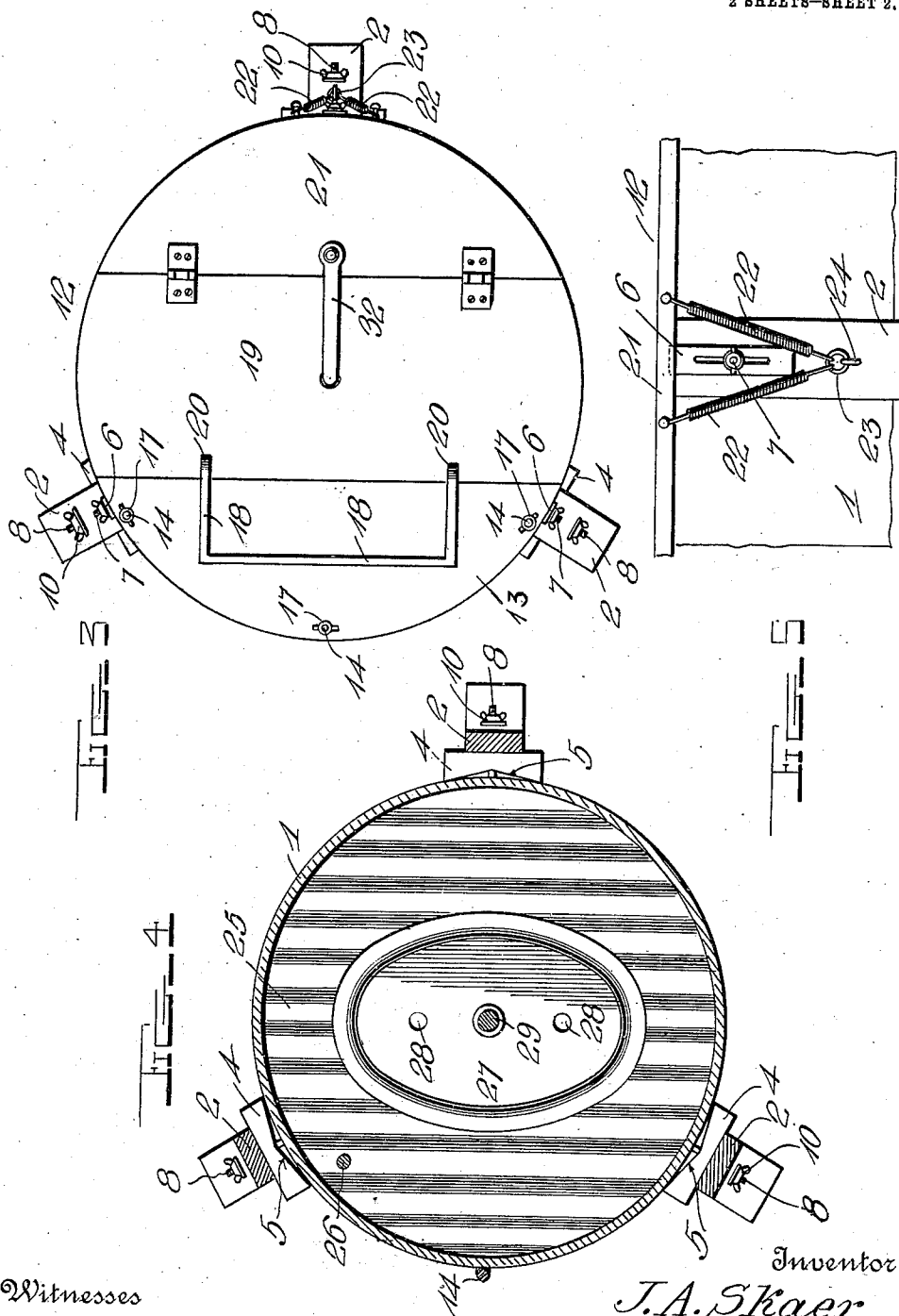
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 J. A. Skaer
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UNITED STATES PATENT OFFICE.

JAMES A. SKAER, OF WICHITA, KANSAS.

WASHING-MACHINE.

991,032.

Specification of Letters Patent.

Patented May 2, 1911.

Application filed March 10, 1910. Serial No. 548,376.

To all whom it may concern:

Be it known that I, JAMES A. SKAER, a citizen of the United States, residing at Wichita, in the county of Sedgwick and State of Kansas, have invented certain new and useful Improvements in Washing-Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in washing machines.

The object of the invention is to provide suitable attachments adapted to be applied to an ordinary wash tub whereby the same is converted into an efficient washing machine and which may be readily removed and the tub again restored to its original condition.

With the foregoing and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claim.

In the accompanying drawings, Figure 1 is a side view of an ordinary washing tub equipped with this improved attachment; Fig. 2 is a central vertical section thereof; Fig. 3 is a top plan view; Fig. 4 is a horizontal section taken on the line 4-4 of Fig. 2. Fig. 5 is a detail fragmentary view of a portion of the tub and one of the legs showing the construction and arrangement of the spring fastening for the hinged sections of the cover.

Referring more particularly to the drawings, 1 denotes an ordinary wash tub which may be constructed of wood or metal and to which is adapted to be secured a series of supporting legs 2, said legs being of any suitable length and having their upper ends beveled or formed at an angle, as shown at 3, whereby when said upper ends are engaged with the sides of the tub, the legs will be disposed at a suitable angle or inclination as shown. In order to hold the lower portions of the legs at the proper angle, I provide spacing blocks 4, which are secured at their outer edges to the inner sides of the legs and have their inner edges notched to form a V-shaped recess 5. The block, when thus recessed, will engage the side of the tub at its opposite ends or cor-

ners, thus forming a firm engagement with the round outer side of the tub.

The legs 2 are provided at their upper ends with adjustable clips or catches 6, which are here shown and preferably consist of slotted plates having inwardly curved hook-shaped upper ends, which are adapted to hook over the upper edge of the tub. The catch plates are adjustably held in place by bolts 7, which are passed through the leg and through the slot in the plates and have on their outer ends thumb nuts which, when screwed up, tightly clamp the plates into engagement with the outer sides of the legs, thus securely holding the upper end of the latter into engagement with the side of the tub. The legs are further secured to the lower portion of the tub by fastening bolts 8, which are inserted through the legs adjacent to the bottom of the tub and have their headed inner ends engaged with the flange 9 formed by the projecting lower edge of the sides of the tub. On the outer ends of the bolts 8 are screwed thumb nuts 10, which when screwed up on the bolts draw the heads thereof into engagement with the flanges 9 on the tub and also bind the spacing blocks against the outer face of the tub, thereby securely fastening the legs to the lower portion of the tub. The bolts 8 are preferably supported by lugs or brackets 11 secured to the inner sides of the legs immediately below and in engagement with the under side of the bolts, as shown.

Adapted to be engaged with the top of the tub is a cover 12, which is preferably formed in sections. One of the outer sections 13 of the cover is secured in place by rigid fastening devices comprising rods 14 having threaded upper ends which project through the cover and hook-shaped lower ends 15 which are adapted to be engaged with the flange on the lower edge of the tub or with suitable studs 16 arranged in the outer side of the legs 2. On the threaded upper ends of the rods are arranged thumb nuts 17, which, when screwed down into engagement with the section 13 of the cover, firmly clamp the latter into engagement with the top of the tub. On the section 13 is formed an upwardly projecting flange 18 to which is adapted to be clamped a wringer, by means of which the clothes, after being washed, may be wrung out as they are removed from the tub.

The intermediate section 19 of the top or cover fits against the inner edge of the section 13 and is caught beneath the projecting ends of the flange 18 of the said section 13, said ends of the flange projecting beyond the edge of the section 13, thus forming fastening lugs 20 whereby the inner edge of the section 19 is held down into engagement with the upper edge of the tub. The outer section 21 of the cover is hingedly connected at its inner edge to the section 19 and is secured at its outer side to the side of the tub or to one of the legs 2 by a fastening device 22, which is here shown and preferably consists of two spiral springs which are secured at their upper ends to the edges of the cover section and have their lower ends brought together and secured to a loop or eye 23, which, when the springs are stretched down into operative position, is adapted to be engaged with a stud or hook 24 arranged in the leg or side of the tub.

In the bottom of the tub is preferably arranged a rubbing surface 25, which is preferably formed of a sheet of corrugated metal and which is held in place in the bottom of the tub by a post 26, which is rigidly secured at its upper end to the rigidly fastened section 13 of the cover. Arranged in the tub, and adapted to co-act with the corrugated surface 25 in the bottom of the tub, is a rotary rubber 27 which is preferably formed of metal and is concave and is preferably elliptical in shape. The rubber has formed in its upper surface water passages 28 and a centrally disposed rectangular passage, with which is engaged the squared lower end of an operating shaft 29, said shaft being secured in the passage of the rubber by a cross pin 30 or other suitable fastening device. The shaft 29 projects upwardly through a suitable opening 31 in the central section 19 of the cover and has formed on its upper end a suitable crank handle 32, whereby the rubber may be oscillated and the clothes thereby rubbed over the roughened or corrugated surface of the bottom of the tub. The shaft 29 is loosely engaged with the opening 31 in the cover, so that the rubber is also adapted to have a vertical reciprocating movement.

By means of the attachment herein shown and described, it will be seen that an ordinary wash tub may be readily converted into a washing machine, and it will also be seen that the attachments may be readily removed and the tub restored to its original condition. By forming the cover in hinged detachable sections, the same may be partly opened to permit the removal or insertion of the clothes, or the hingedly connected parts of the same may be taken off to permit the removal of the rubber without disturbing the wringer supporting section of the cover.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined in the appended claim.

Having thus described my invention, what I claim is:—

The combination with a wash tub, of a plurality of detachable supporting legs having the inner faces of their upper ends beveled, longitudinally adjustable plates mounted on the outer faces of said legs and having hooks for engagement with the upper edge of said tub, spacing blocks secured to the inner faces of said legs in position to engage the outer faces of the tub and each of said blocks having a concave inner face, L-shaped fastening bolts extending transversely through said legs with the short arms thereof arranged in position to engage the lower edge of the tub, and supporting members arranged on the inner faces of said legs below and in engagement with said bolts, and a rubber carrying cover detachably connected with said legs.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JAMES A. SKAER.

Witnesses:

G. L. EDWARDS,
J. H. SIMPSON.