

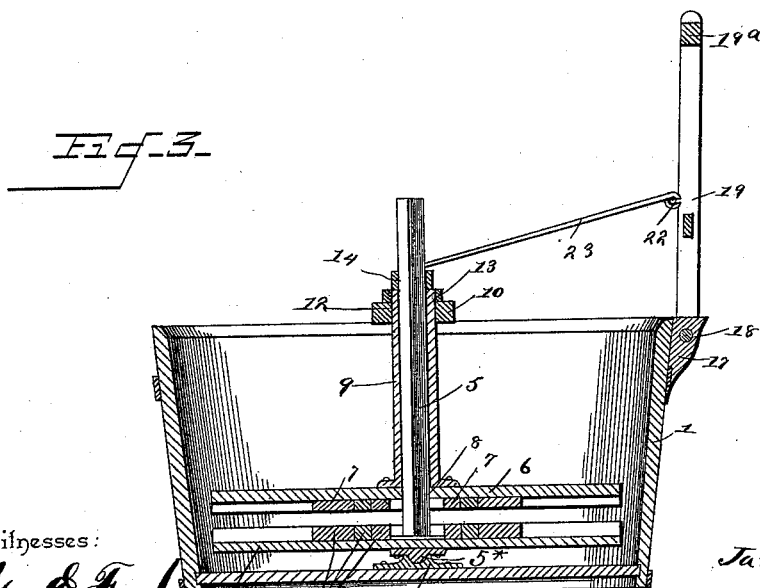
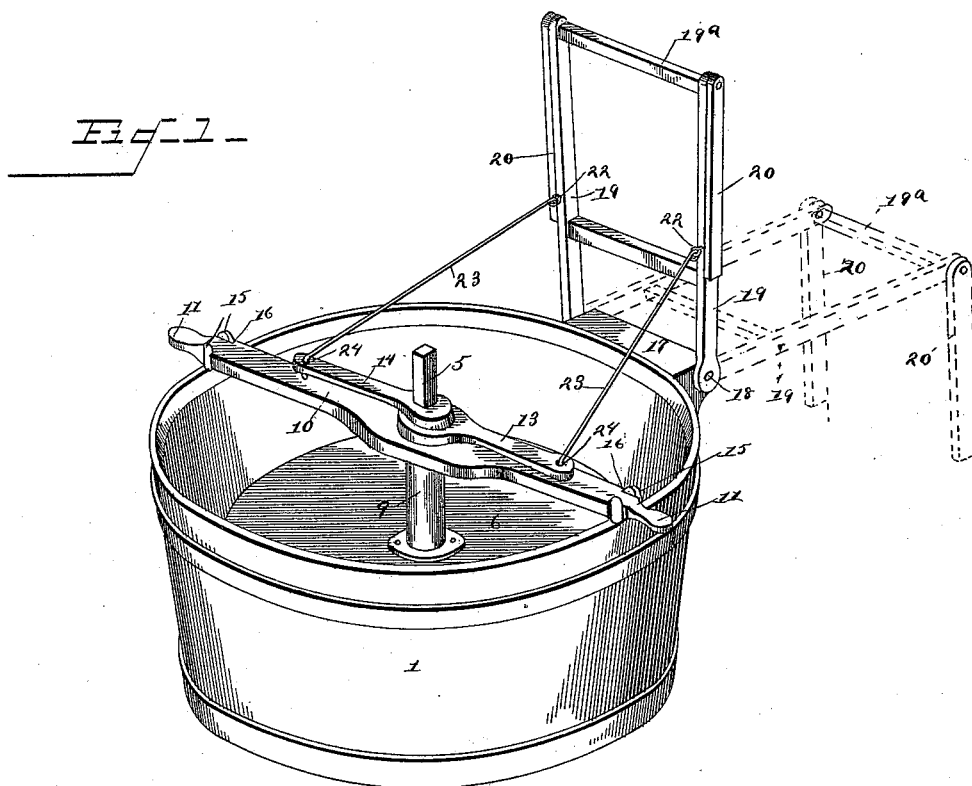
(No Model.)

2 Sheets—Sheet 1.

J. W. BADER.
WASHING MACHINE.

No. 418,668.

Patented Jan. 7, 1890.



Witnesses:

Geo. E. Fuchs

J. S. Laval

By *his* Attorneys,

C. A. Snow & Co.

Inventor
James W. Bader

(No Model.)

2 Sheets—Sheet 2.

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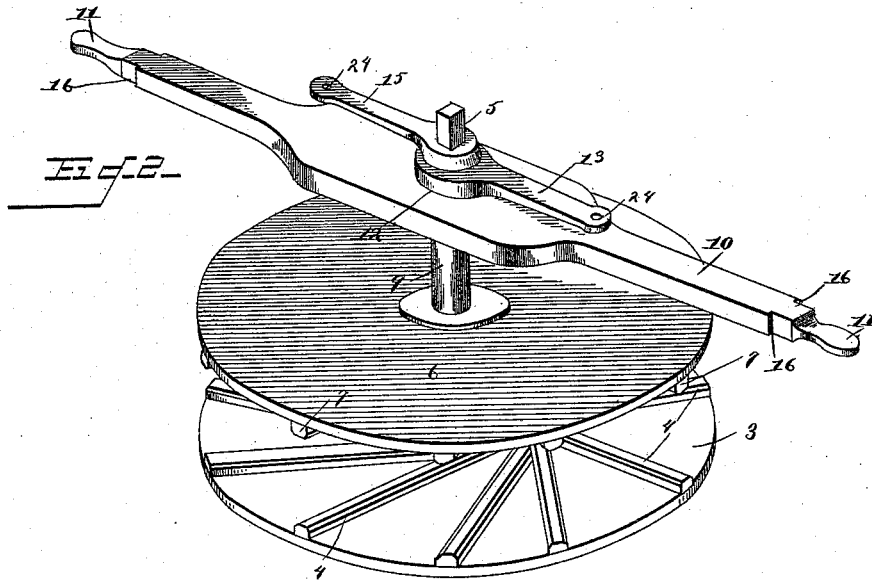
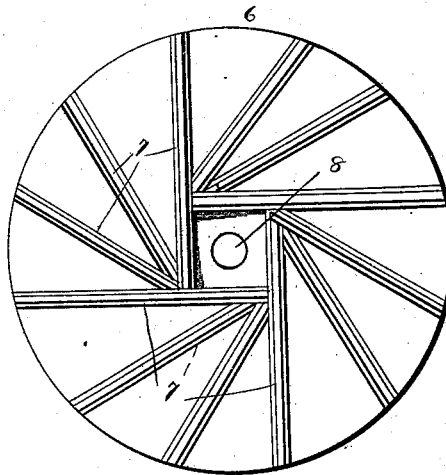
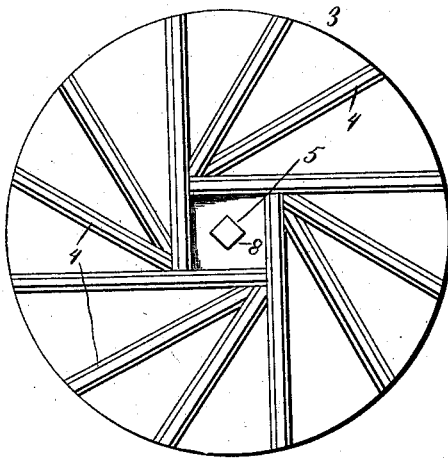


Fig. 4.

Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

JAMES W. BADER, OF REDKEY, INDIANA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 418,668, dated January 7, 1890.

Application filed September 25, 1889. Serial No. 324,985. (No model.)

To all whom it may concern:

Be it known that I, JAMES W. BADER, a citizen of the United States, residing at Redkey, in the county of Jay and State of Indiana, have invented a new and useful Washing-Machine, of which the following is a specification.

This invention has relation to washing-machines, and among the objects in view are to provide a machine the operative mechanism of which is adapted to be applied to any ordinary wash-tub, and which will thoroughly eradicate dirt from the clothing by oppositely-rotating rubbers, and to provide means for rotating the rubbers.

A further object of the invention is to provide such means for rotating the rubbers as are also adapted to be disconnected from the rubbers and serve as a support arranged at the side of the tub for the reception of a clothes-basket, wringer, or other object desired to be supported in a handy position.

With these general objects in view the invention consists in a lower rubbing-disk having tangential ribs or rubbers and an upwardly-projecting square shaft, a second disk having similar rubbers and an open hub for the reception of the square shaft, a cross-bar secured to the edge of the tub and having a bearing for the hub, opposite crank-arms mounted on the hub and shaft, and a swinging frame hinged to the tub and adapted to serve as a support, and rods or pitmen for connecting the frame to the cranks for operating the same and the disks.

Referring to the drawings, Figure 1 is a perspective of a washing-machine constructed in accordance with my invention. Fig. 2 is a similar view of the internal rubbing mechanism detached. Fig. 3 is a transverse vertical section. Fig. 4 is a top plan view of the lower disk or rubber in detail. Fig. 5 is a bottom plan view of the upper disk or rubber.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 represents a wash-tub of ordinary construction, in the center of the bottom of which is located a bearing-plate 2.

3 represents a disk somewhat smaller than the tub, the upper surface of which is provided

with a series of tangentially-arranged ribs 4. A square shaft 5 is secured to the center of the disk, and to the bottom of the disk is secured a bearing-stud 5^x, stepped in the bearing-plate.

6 represents the upper disk, the lower surface of which is provided with tangentially-arranged ribs 7 oppositely disposed to the ribs of the opposite disk. The disk 6 is centrally perforated, as at 8, and secured to the upper surface of the disk in line with the perforation is an upwardly-projecting bearing hub or sleeve 9, which loosely receives the square shaft 5.

10 represents a transverse bar or handle terminating at its outer ends in grips 11, and centrally perforated, as at 12, to form a bearing for the upper end of the bearing-sleeve, the upper end of said sleeve extending above the bearing and fitted with a crank 13, and above the same the shaft 5 is fitted with a similar crank 14. The transverse bar is connected removably with the edge of the tub in this instance by opposite pairs of pins 15, which embrace the opposite sides of the bar near the grips, for which purpose that bar is oppositely recessed, as at 16.

17 represents a bearing-bracket secured to the side and near the upper edge of the tub, and through the same is passed a pintle 18, the ends of which project at each side of the bracket and receive the lower ends of a pair of bars 19, the outer ends of the bars being connected by a cross-bar 19^a, and provided with pivoted legs 20, adapted to fold up into line with the longitudinal bars, or to be extended to a right angle thereto to form supporting-legs for the outer ends of the bars. Eyes 22 are secured to the upper faces of the longitudinal bars, and loosely connected to the same are a pair of crank-rods 23, the free ends of which are bent at an angle and removably inserted in perforations 24, formed in the extremities of the two cranks 13 and 14.

The operation of my invention is as follows: By grasping the transverse bar 20 and oscillating the hinged frame it will be apparent that the two cranks will be simultaneously operated in opposite directions, and in like manner the disks will be operated, and clothing inserted between the disks will be thor-

oughly rubbed, the dirt eradicated and thrown to the outer perimeter of the tub, as will be apparent. After the washing has been accomplished the crank-rods may be disconnected from the cranks and the frame lowered, as shown by dotted lines in Fig. 1, and serve as a support for a basket, in which may be placed the clothes as they are wrung and prior to drying.

10 It is apparent that by grasping the two grips the whole mechanism may be removed from the tub.

Having thus described my invention, what I claim is—

15 1. The combination, with a wash-tub and washing mechanism, of a frame pivoted to the side of the tub and detachably connected to the washing mechanism for operating it, said frame being provided with legs pivoted
20 thereto, whereby the frame, when detached from the washing mechanism, can be folded down to serve as a support, substantially as specified.

2. The combination, with the tub 1, having the block 17, perforated to form a bearing, and 25 the washing mechanism provided with operating cranks or levers, of the herein-described rectangular frame, consisting of the opposite side bars 19, pivoted, as at 18, in the block and connected at their upper ends by the 30 transverse hand-bar 19^a, the rods 23, connected loosely to the bars 19 and detachably to the operating cranks or levers, and the loosely-pivoted legs 20, adapted to fall by gravity when the frame is lowered to a hori- 35 zontal position and detached from the washing mechanism, and thus form a support for the frame, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 40 presence of two witnesses.

JAMES W. BADER.

Witnesses:

MICHAEL BADER,
GILF H. JONES.