

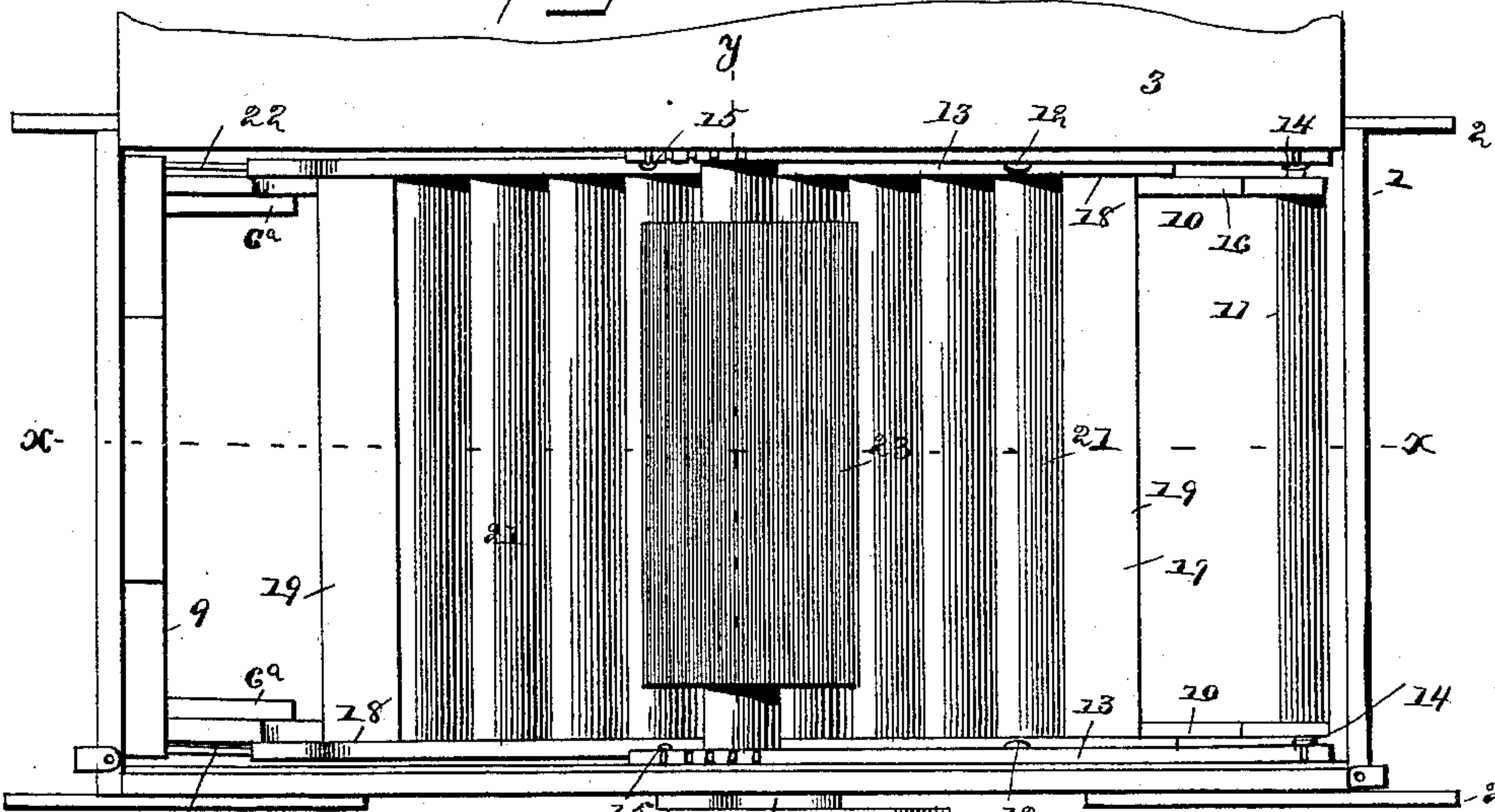
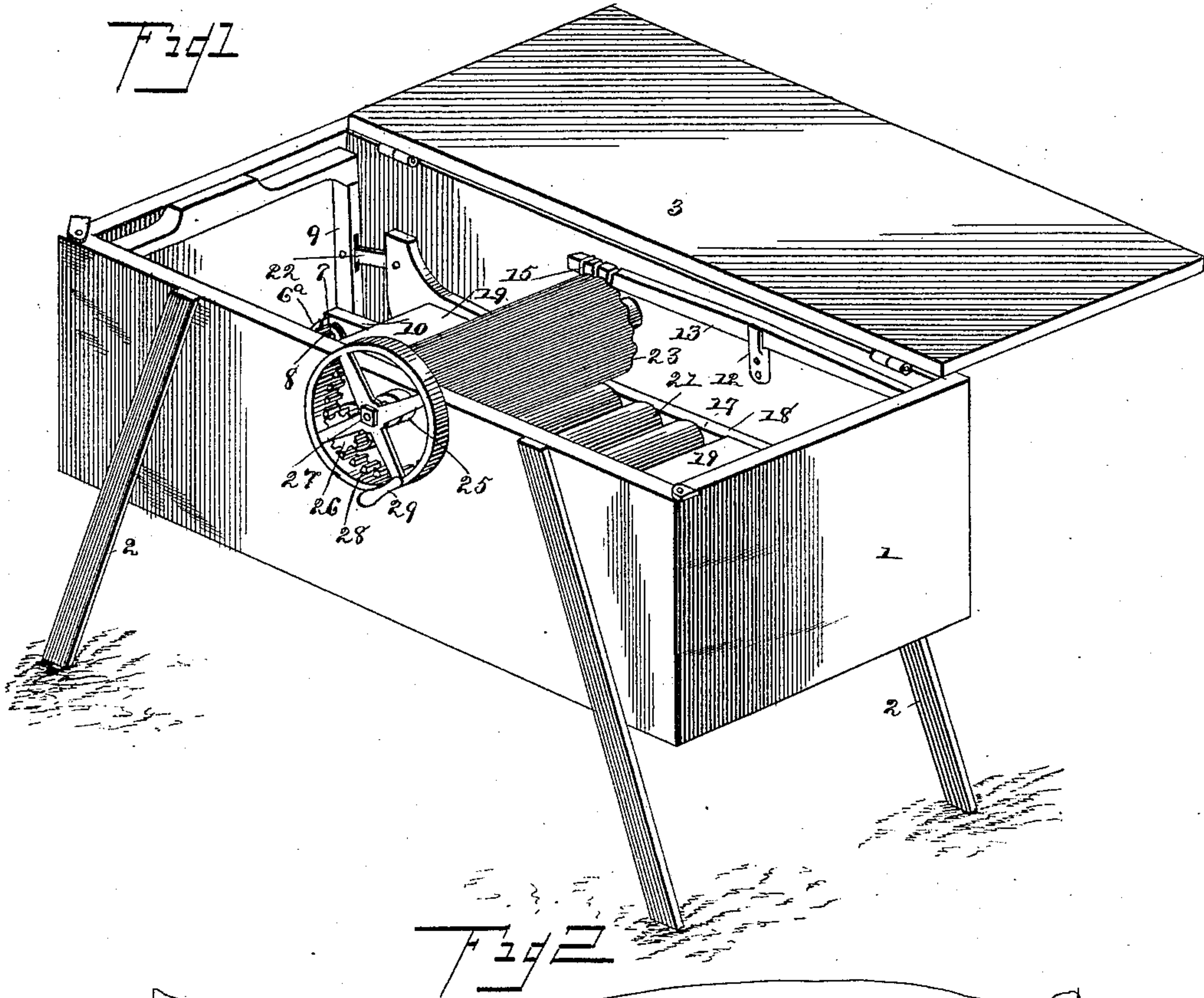
(Model.)

2 Sheets—Sheet 1.

J. M. BOLTON.  
WASHING MACHINE.

No. 429,993.

Patented June 10, 1890.



Witnesses: 22

John Irvine  
W. L. L. Wall

By his Attorneys,

James M. Bolton

C. A. Snow & Co.

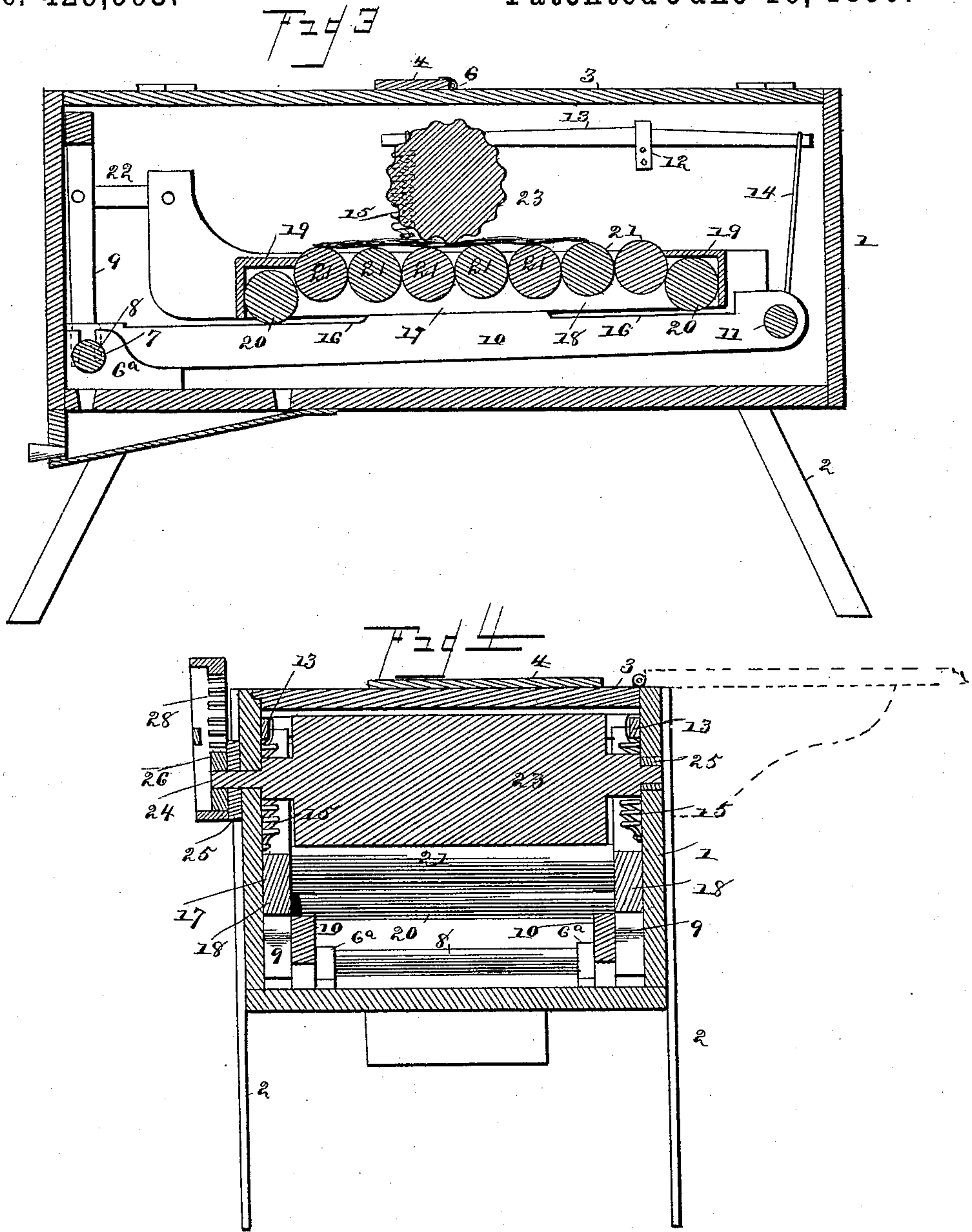
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*John Amie*  
*W. S. Luvall*

Inventor

*James M. Bolton*

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# UNITED STATES PATENT OFFICE.

JAMES M. BOLTON, OF CARSON, IOWA.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 429,993, dated June 10, 1890.

Application filed June 15, 1889. Renewed April 21, 1890. Serial No. 348,770. (Model.)

*To all whom it may concern:*

Be it known that I, JAMES M. BOLTON, a citizen of the United States, residing at Carson, in the county of Pottawattamie and State of Iowa, 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 so constructed as to be capable of operating upon any portion of a garment any desired period of time, whereby said portion may be thoroughly cleansed without subjecting the entire garment to the rubbing operation or to the subjection of one garment to more rubbing and cleansing than are its companions; to provide means for regulating the degree of pressure given to the rubbers, and, withal, to provide a machine operating as above and obviate at the same time any necessity of immersing the hands of the operator in the water.

A further object of the invention is to so mount the parts as to prevent the rubbing of the clothes in dirty or used water, and so that the clothes may, after a proper rubbing, be removed to another tub for a thorough rinsing and be prevented from sinking down into the collection of dirt removed from previously-washed garments.

With these general objects in view the invention consists in the provision of a suds-box, and pivoting within the same the frame yieldingly at one end, and in mounting over said frame a holding-rubber, and providing a lever for moving the same from one point to another under a superimposed revoluble rubber, whereby different garments or portions thereof are brought to the rubbing point and subjected to the cleansing operation, and, furthermore, to provide said superimposed rubber with suitable gear for revolving the same, all as will hereinafter appear.

Referring to the drawings, Figure 1 is a perspective; Fig. 2, a plan; Fig. 3, a longitudinal section on line *x x* of Fig. 2. Fig. 4 is a transverse section on line *y y* of Fig. 2.

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

1 represents an ordinary rectangular suds-box, having suitable supporting-legs 2 and a hinged cover 3, the upper surface of which

is provided with a triangular bracket 4, hinged thereto by hinges 6, whereby said cover may be swung upon its hinges and the bracket thrown to an outer position and abut against the adjacent side or wall of the suds-box, and thus provide a convenient clothes-supporting shelf. Within the suds-box at one end are mounted opposite brackets 6<sup>a</sup>, having at their upper ends bearings 7, in which is mounted the rock-shaft 8, the ends of which project at each side of its bearings and are provided with an upwardly-disposed inverted-U shaped handle or bail 9, extending up about flush with the upper edge of the suds-box. Intermediate the brackets and the supporting ends of the bail 9, at each side of the box, is loosely mounted a longitudinal arm 10, which projects to the opposite end of the box, and they are connected by a tie-rod 11. At the inner sides of the opposite side walls of the box are secured brackets 12, in which are loosely mounted levers 13, the outer ends of which are connected by links 14 to the ends of the tie-rod 11. The opposite ends of the levers 13 are attached loosely to coiled springs 15, the opposite ends of the springs being made fast to their respective walls of the suds-box. The inner ends of the levers 13, or those ends to which the springs are attached, are preferably provided with a series of notches, into any one of which the ends of the springs may be hooked, whereby the tension to the lever 13 will be increased or diminished, and whereby, also, the frame composed of the arms 10 and tie-rod 11 may be drawn upwardly to a greater or less degree. The upper edges of the opposite arms 10 are each provided with recesses 16 intermediate their ends, and upon the same is mounted and adapted to ride the holding-frame, which I shall now proceed to describe.

17 represents the holding-frame, and the same consists of two opposite bars 18, connected at their ends by cross-pieces 19, each of which is recessed upon its under side to receive a roller 20, journaled in the sides 18 and projecting below the edges of the bars 19 and 18, and riding upon the tracks 16. Loosely mounted in the arms 18 and between the end bars 19 are a series of rubbing-rolls 21. Links 22 connect the opposite depending arms of the operating-handle 9 with the rear ends of the



side bars 18 of the frame 17, and by oscillating the handle or bail it is apparent that the frame 17 as a whole may be moved back and forth upon the track 16, formed in the bars 10.

23 represents a longitudinally-corrugated rubbing-roll mounted upon a revoluble shaft 24, journaled in opposite bearing-brackets 25, secured to the walls of the suds-box. Upon the outer end of the shaft is mounted a small pinion 26, which is keyed to the shaft, and above the pinion and in the bearing-bracket at one side of the box is mounted upon a shaft 27 a ring-gear 28, having a crank-handle 29.

From the above description it will be seen that by operating the ring-gear 28 motion will be imparted to the pinion 26, the shaft 24, and the rubber 23. It will also be noticed that by reason of the yielding connection described the frame 17 and also the supporting-frame will be maintained in a yielding manner against the corrugated roller 23. Furthermore, that, regardless of the revolutions of the corrugated rubber 23, movable rubbing-frame 17 may be moved along to present different articles of clothing to the action of the rubber, or to present different portions of an apparel to the action of the rubber, and that by holding the handle so as to bring the desired portions under the rubber certain soiled portions of apparel may receive more rubbing action than other portions. It is also apparent that the parts wherein are located the cleansing mediums are arranged near the upper portion of the box, or at about the water-line, and thus the apparel is not forced back and forth through the dirty water, the sediments of which will not be agitated, and will sink to the bottom of the box for withdrawal.

By disconnecting the spring 15 from the lever 13 and removing the shaft 24 the parts may be withdrawn for drying.

Having thus described my invention, what I claim is—

1. In a washing-machine, the combination, with a suds-box, of a handle pivoted in the box, a frame provided with tracks pivoted in the box, means for yieldingly supporting the frame at one end, a holding-frame mounted over the yieldingly-held frame and connected with the handle, and a superimposed rubber, substantially as specified.

2. In a washing-machine, the combination, with the suds-box, of a pivoted handle mounted therein and at one end, a yieldingly-

supported pivoted frame mounted in the box and provided with opposite tracks, a holding-frame mounted upon the tracks by means of rollers mounted therein, links connecting the holding-frame and handle and a superimposed corrugated rubber, and mechanism for rotating the same, substantially as specified.

3. In a washing-machine, a suds-box provided with opposite brackets at one end, and with a shaft, in combination with a bail or handle mounted on the shaft, and opposite longitudinal arms having tracks mounted on the shaft pivotally and connected at its opposite ends to superimposed levers pivoted to the side of the box, spring-pressed at one end and loosely connected at the other to the side arms, a holding-frame connected with the handle and provided with opposite friction-rollers running in the tracks and with intermediate loosely-mounted rubbing-rollers, and a superimposed corrugated roller mounted on the shaft, and means for operating said shaft, substantially as specified.

4. The box 1, provided with the opposite brackets 6, having the shaft 8, in combination with the inverted-U-shaped handle 9, pivoted to the shaft, the opposite bars 10, also pivoted to the shaft and connected at their outer ends by the tie-bar 11, and provided with intermediate tracks 16, the bracket 12, pivotally supporting the levers 13, having the notches at one end, and the springs 15, connected therewith and having their opposite ends connected by the links 14 to the tie-bar, and the frame 17, consisting of the opposite bars 17, connected at their ends by the cross-bars 19, recessed upon their inner surface and provided with rollers 20, operating in the track 16, and having the intermediate rubbing-rollers 21, and the links 22, connecting the rear ends of the bars 18 with the handle 9, and the shaft 24, mounted above the frame 17 in bearings 25, and provided with rigid corrugated rubbing-roller 23 and pinion 26, and the stud-shaft 27, mounted at one side of the shaft 24 and carrying the ring-gear 28, meshing with the pinion 26, and having the operating-crank 29, substantially as specified.

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

JAMES M. BOLTON.

Witnesses:

W. J. WAY,  
ED RAYBURN.