

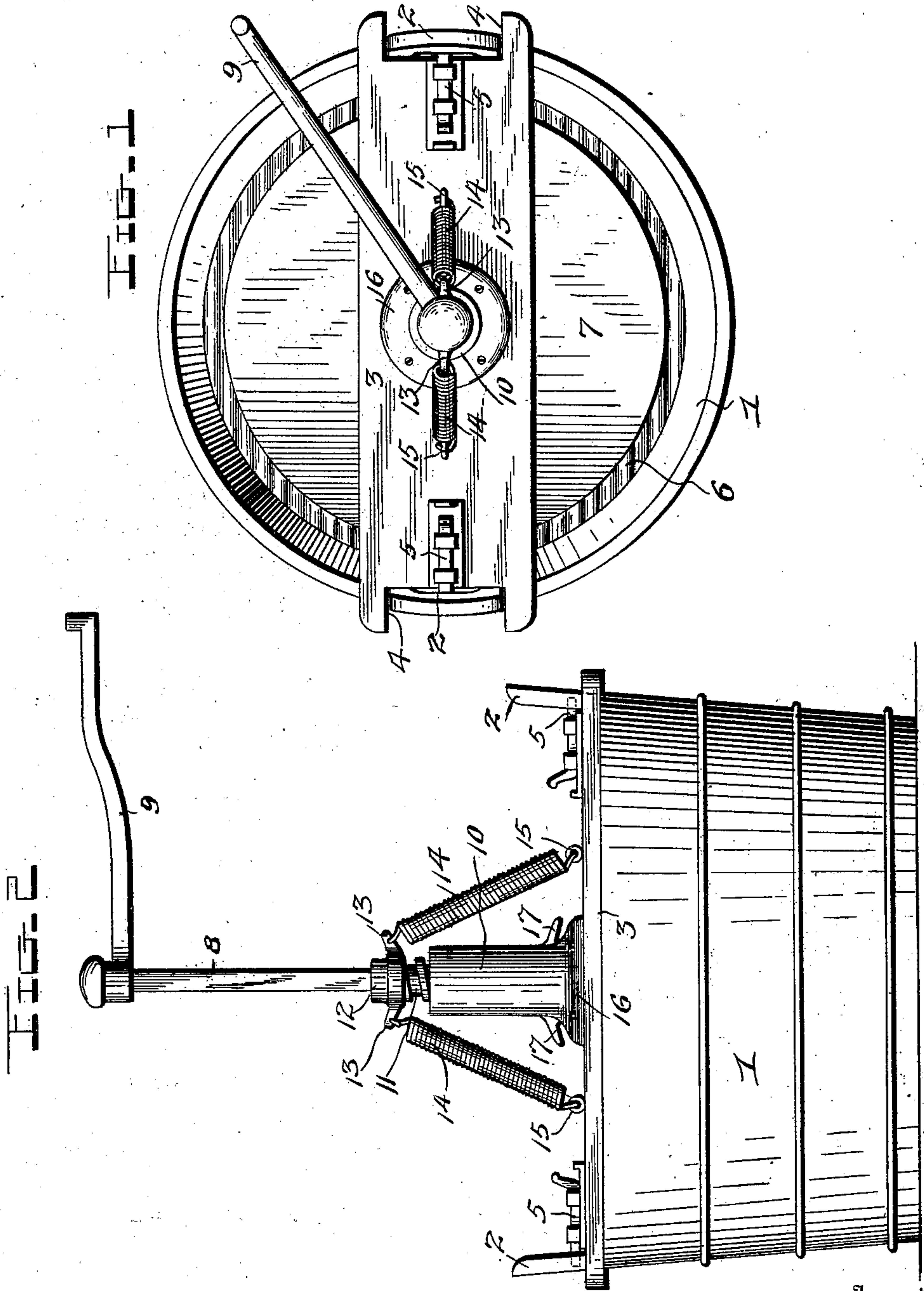
No. 724,558.

PATENTED APR. 7, 1903.

M. J. DUNN.  
WASHING MACHINE.  
APPLICATION FILED OCT. 6, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



Inventor

M. J. Dunn

Witnesses

J. A. Grieshaber, Jr. By  
J. A. Grieshaber, Jr.

A. B. Wilson & Co.  
Attorneys

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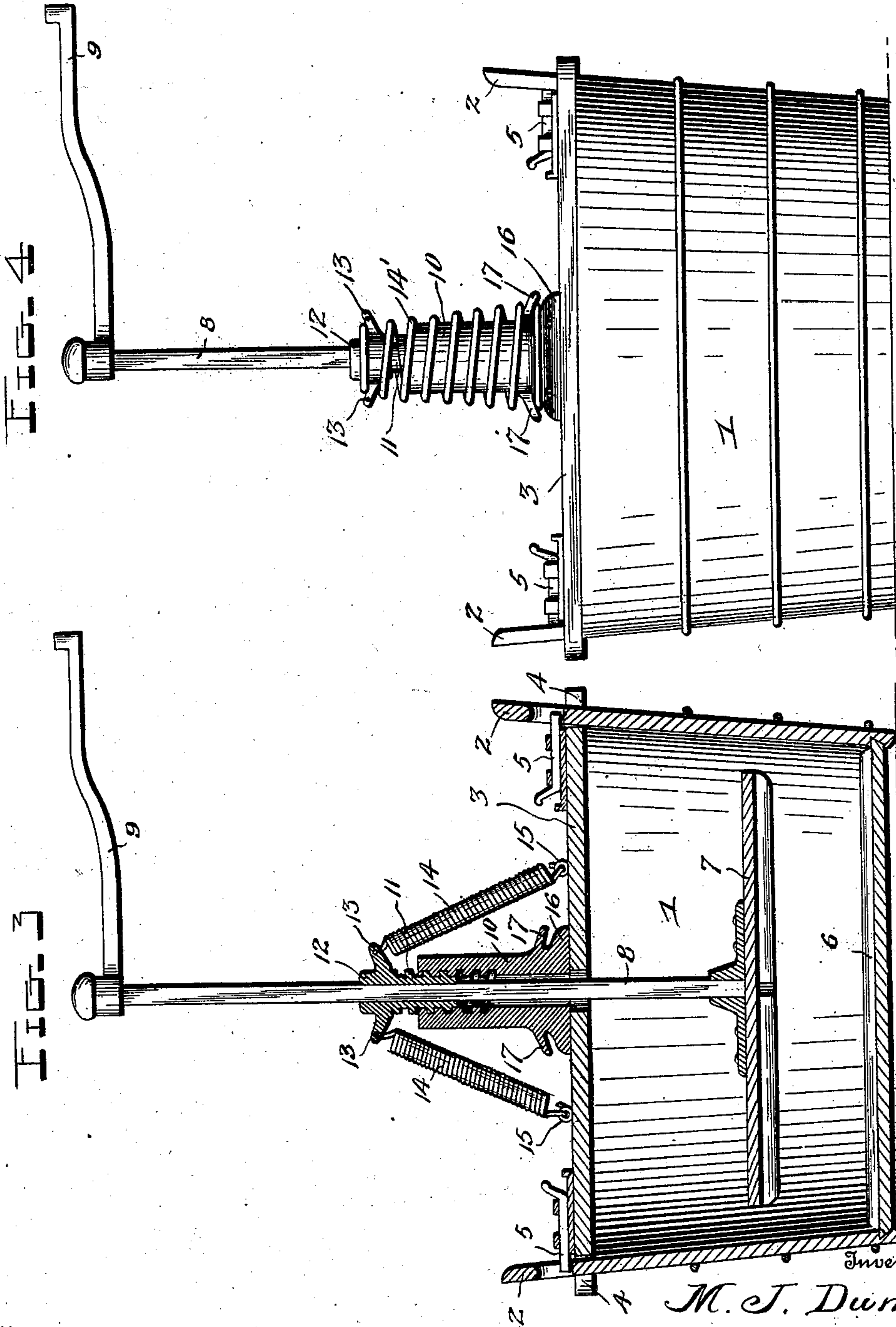
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*J. A. Gresham Jr.*  
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By

*A. B. Wilson & Co.*

Attorneys



# UNITED STATES PATENT OFFICE.

MICHAEL J. DUNN, OF POTTSVILLE, PENNSYLVANIA.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 724,558, dated April 7, 1903.

Application filed October 6, 1902. Serial No. 126,186. (No model.)

*To all whom it may concern:*

Be it known that I, MICHAEL J. DUNN, a citizen of the United States, residing at Pottsville, in the county of Schuylkill and State of Pennsylvania, 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, and particularly to operating mechanism for such machines.

The object of the invention is to provide a clothes-washing attachment for wash-tubs whereby a tub of ordinary form may be employed as the suds-box of the machine and to provide simple and effective means for operating an oscillating agitator.

With this 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 claims.

In the accompanying drawings, Figure 1 is a top plan view of a tub equipped with my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a vertical section. Fig. 4 is a side elevation showing a modification.

1 in the drawings denotes an ordinary wash-tub provided with apertured handles 2, and 3 denotes the base or support of the washing mechanism, which rests upon the upper edge of the tub and is formed with recesses 4 at its ends to receive the handles and provided with sliding bolts 5 to project into the openings in the handles and lock the support thereto. The tub may be provided with a corrugated bottom lining 6.

7 denotes a corrugated oscillatory agitator carried by a rectangular shaft 8, extending through the support and carrying at its upper end an operating-handle 9. Fixed to the support is an internally-threaded socket 10, in which operates a screw-threaded sleeve 11, through which passes the shaft 8, the opening in the sleeve being of rectangular form to correspond to the shaft and cause the shaft to be locked to the sleeve against independent rotation while adapting said shaft

to slide in said sleeve. The sleeve is provided at its upper end with a head 12, formed on opposite sides with lateral ears 13, apertured to receive the hooked ends of diagonal springs 14, connected at their opposite ends to screw-eyes 15 on the base 3. The lower end of the sleeve terminates in an attaching-flange 16, which is bolted or otherwise suitably fastened to the base 3 and provided with offstanding ears 17 for a purpose hereinafter described.

In operation the handle 9 is turned to partially rotate the shaft 8 in one direction, whereby the sleeve is screwed down into the socket, carrying with it the shaft, which is held from sliding upward in the sleeve under the resistance of the clothes by the pressure of the operator on the handle 9, by which such rotary movement of the shaft is caused to simultaneously turn the agitator in one direction and force it down in contact with the clothes, giving a rubbing action and pressure on the clothes at one and the same time. Obviously this pressure may be varied by the operator giving a greater extent of downward movement to the agitator by exerting pressure to slide the shaft down in the sleeve. The turning of the shaft is accomplished against the resistance of the springs, which assist by their reaction in effecting a quick reverse rotation of the shaft and upward movement of the sleeve in its socket, whereby the pressure of the agitator on the clothes is diminished and a reverse easy rubbing action takes place. In this direction of movement of the sleeve the operator may also vary the pressure on the clothes as desired by resisting the upward movement of the shaft. Of course it will be understood that the shaft may fit so tightly in the sleeve as to require a preliminary downward pressure on the shaft to bring the agitator into contact with the clothes, after which the shaft may be turned to secure the downward pressure and rubbing action, as before described, or the shaft may be loose enough to allow the agitator to drop down into contact with the clothes when the mechanism is applied to the tub, thus obviating the necessity of manually giving the shaft such preliminary downward movement.

Instead of employing the springs 14 I may employ a spiral spring 14', surrounding the



socket and hooked at its ends to the ears 13 and 17, as shown in Fig. 4, whereby the same spring-reversing action will be obtained in a manner readily understood.

5 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.

10 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.

15 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

20 1. Washing mechanism comprising a support, an oscillating agitator, an internally-threaded socket carried by the said support, a shaft carrying the agitator, a screw-thread-

ed sleeve operated by the shaft and adjustable on the threads of the socket, and means for opposing the rotation of said sleeve and returning the same and shaft to their normal 25 positions, substantially as described.

2. Washing mechanism comprising a support, an oscillating agitator, an internally-threaded socket carried by the said support, a shaft carrying the agitator, a screw-thread- 30 ed sleeve operated by the shaft and engaging the threads of the socket, and springs connecting the base and sleeve to resist rotation of the latter and return it to its normal position, substantially as shown and described. 35

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

MICHAEL J. DUNN.

Witnesses:

EDW. L. LONG,  
MARTIN F. DUFFY.