

No. 725,022.

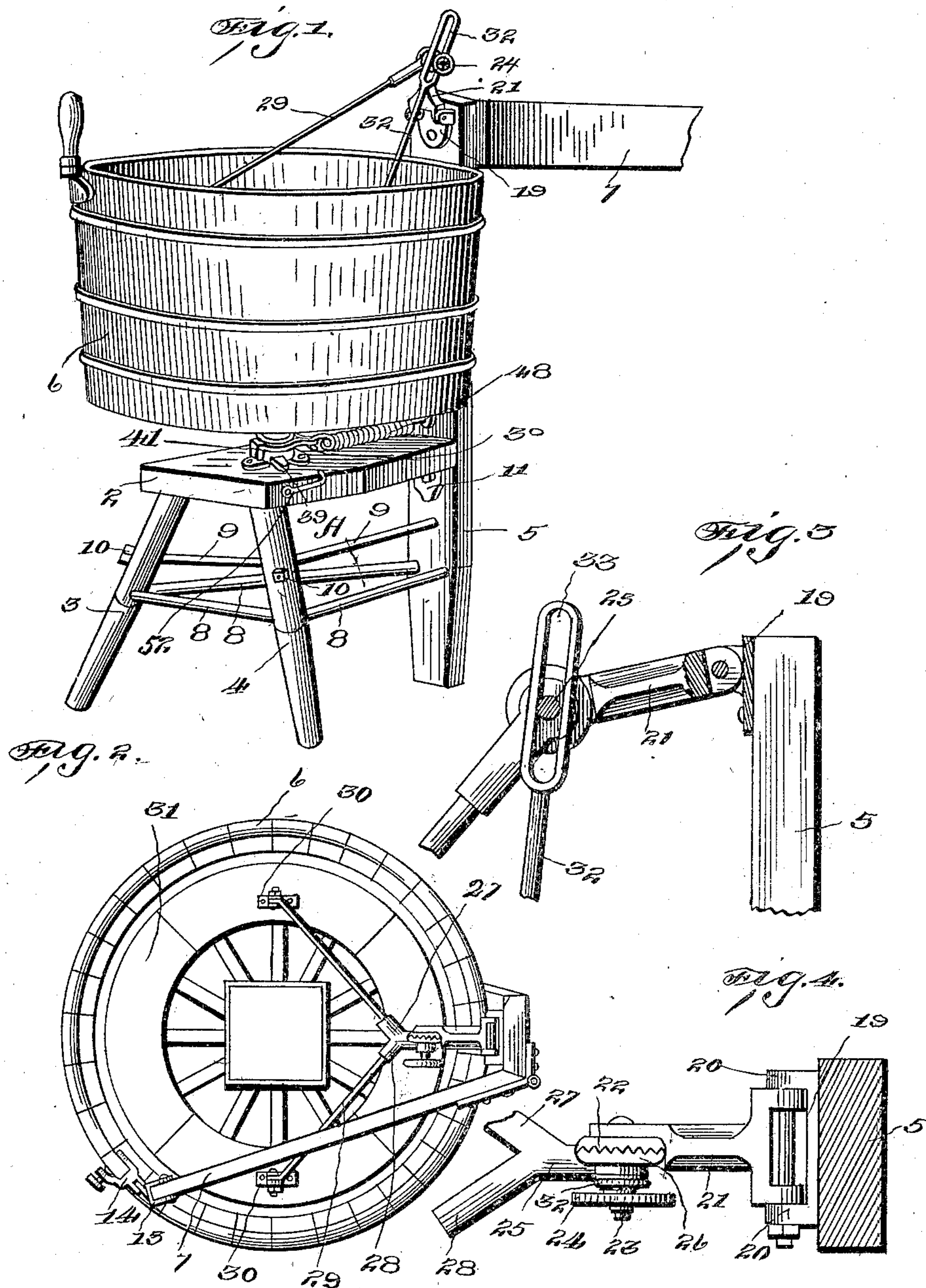
PATENTED APR. 14, 1903.

T. E. BARROW.
WASHING MACHINE.

APPLICATION FILED DEC. 18, 1901.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses

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Stephen H. Brooks.

Inventor
Thomas E. Barrow
By
Attorneys.

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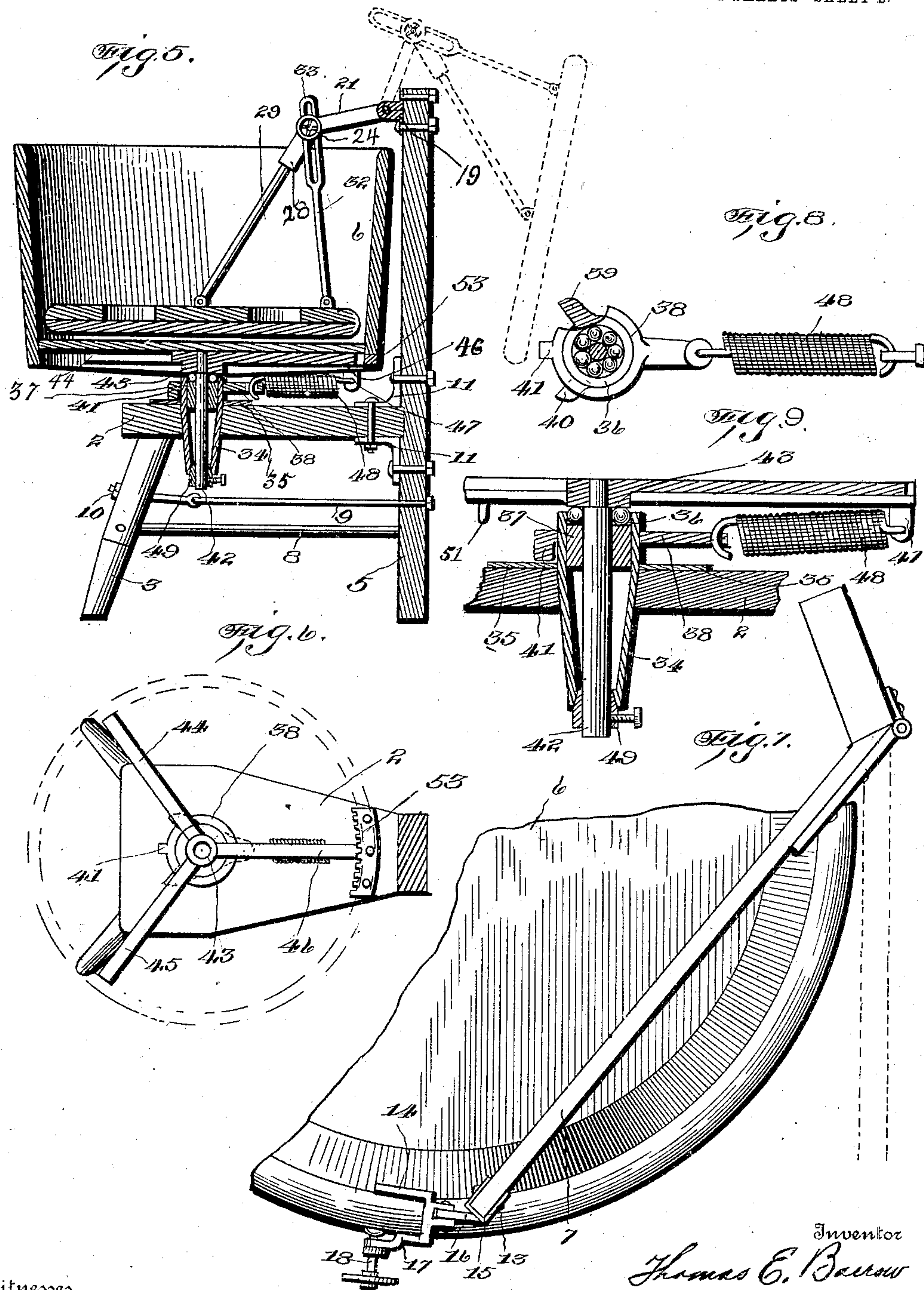
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By
H. C. Brown & Co.
Attorneys

UNITED STATES PATENT OFFICE.

THOMAS E. BARROW, OF MANSFIELD, OHIO.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 725,022, dated April 14, 1903.

Application filed December 18, 1901. Serial No. 86,382. (No model.)

To all whom it may concern:

Be it known that I, THOMAS E. BARROW, a citizen of the United States, residing at Mansfield, in the county of Richland and State of Ohio, have invented certain new and useful Improvements in Washing-Machines, of which the following is a specification.

My invention relates to improvements in washing-machines, and especially to that class which embodies a rotary tub provided with rubbing-cleats and an upper stationary rubbing-disk separate from the tub.

The object of my invention is the provision of a simple yet durable and inexpensive washing-machine. This object I accomplish by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a view in perspective of my improved machine complete. Fig. 2 is a top plan view thereof. Fig. 3 is an enlarged fragmentary view, in side elevation, of the upper rubbing-disk attachment. Fig. 4 is a plan view thereof. Fig. 5 is a vertical sectional view of my improved machine. Fig. 6 is a top plan view of the base or bench and the revoluble platform, the tub being shown in dotted lines. Fig. 7 is an enlarged top plan view of a portion of the tub, the wringer-board hinged to the rear bench-post, also the clamping device adapted to clamp the loose end of the wringer-board to the edge of the tub. Fig. 8 is a top plan view of the spring-lever; and Fig. 9 is an enlarged vertical sectional view of the center bearing, the revoluble platform, and the means for attaching the spring to the lever, and the rotating platform, parts being broken away.

In the accompanying drawings, A indicates the machine bench or base, which comprises a top 2, legs 3 and 4, and a vertical post 5, arranged at the rear end of the said top and forming the rear leg of the bench. The post 5 extends above the top of the bench and is adapted to project above the top of the tub 6 when it has been placed in position upon the bench. Hinged on the side of the post 5, adjacent its upper end, is the wringer-board 7, the object of which will be hereinafter explained. Braces 8 are placed between the legs, also tie-rods 9, which have their outer ends screw-threaded, and passing through the legs and having their inner ends looped together

centrally of the bench-top. Nuts 10 are secured upon the outer ends of the said rods for obtaining the desired amount of tension upon the rods in order to hold the legs firmly in position. At its rear end the top 2 is secured to the post 5 by means of angle-plates 11, bolted to its upper and under side and to the post. On the outer end of the wringer-board 7 is secured a clamping device comprising two sections 13 and 14. The section or part 13 is composed of a bifurcated portion 15 and an outwardly-projecting lug 16. To this lug is hinged the clamp 17, which has its opposite end bifurcated, the arms of which pass on the opposite sides of the upper edge of the tub and are prevented from accidental disengagement therefrom by means of a set-screw 18. Secured upon the inner face of the post 5 and above the line of the upper edge of the tub is a bracket 19, provided with outwardly-extending lugs 20. An arm 21 is hinged between said lugs, said arm being provided adjacent its opposite end with a disk 22. A bolt 23, provided on one of its ends with a nut-wheel 24, is secured centrally in the disk. The casting or arm 25 is provided upon its outer end with a corresponding vertical disk 26. Both disks are serrated upon their inner faces, so that they will not slip when clamped together by the nut-wheel 24. The inner end of the arm 25 is divided into two diverging arms 27 and 28. Rods 29 are rigidly secured within the ends of said arms at their upper ends and are hinged at their lower ends in suitable plates 30, secured upon the top of the upper rubbing-disk 31. Secured upon the top of the rubbing-disk at its rear portion is the brace-rod 32, the upper end of which is provided with a slot or opening 33. This slot is of sufficient width to allow the center bolt 23 to pass freely through the same. The object of this device is to hold the upper rubbing-disk in a horizontal position within the tub and to prevent any tilting or lateral movement thereof.

When it is not desired to employ the upper rubbing-disk, the tension is taken from the clamping-nut, which allows the said disk to be removed from the tub and placed in position, as shown in dotted lines, Fig. 5.

34 designates a hanger arranged in an open-

ing in the bench-top and provided with flanges 35, through the medium of which the hanger is bolted to the bench-top. Projecting above the said flanges are the sleeves 36 and 37, the latter being of less diameter than the former and arranged in the upper end thereof, its upper face, in conjunction with the upper end of the sleeve 36, forming a seat or raceway. 38 designates a lever arranged above the bench-top and having its inner portion encircling the upper portion of the sleeve 36 and provided with an integral projection 41. Arranged on each side of the said projection 41 and formed integral with the sleeve 36 are the lugs 39 and 40, said lugs forming stops against which the projection 41 bears as the lever is rotated upon the sleeve and which retards the movement thereof, and through the action of the spring 48 a quick return motion is effected. Arranged centrally and vertically in the sleeves 36 and 37 is the shaft 42. Secured upon the upper end of this shaft is a metallic platform 43, preferably formed of three radiating arms 44, 45, and 46, the latter of which is provided upon its under side, adjacent its outer end, with a downwardly-projecting lug 47, to which is attached the outer end of the coil-spring 48, the inner end of said coil-spring being attached to the outer end of the lever 38.

The lower end of the bracket 34 is preferably cone-shaped, and in order to secure the shaft 42 therein I mount on the lower end of the said shaft 42 a collar 49, having a conical top, which is fitted within the lower end of the bracket 34.

The metal platform 43 is provided on its lower face with a centrally-arranged hub, through which extends the upper end of the shaft 42, and in order to reduce the friction between the said hub and the inner sleeve 37 I place a number of balls therebetween, as clearly shown in Fig. 9.

Arranged on the outer end of the arm 45 is a downwardly-extending lug 51, adapted to be engaged by a hook 52, pivotally secured to the bench, by which means the metal platform is locked and prevented from rotating.

The outer end of the arm 46 is serrated and adapted to engage the serrated plate 53, se-

cured to the lower edge of the tub. This construction prevents the tub from slipping on the platform or having a movement independent thereof.

In operation the tub 6 is placed upon the platform 43, which, if desired, can be held stationary during this operation by the hook 52 and the teeth of the tub's serrated member 53 brought into engagement with the serrated end of the arm 46. The clothes are then placed in the tub and the upper rubbing-disk 31 placed in the tub above the clothes. The joint 55 is then made rigid by the nut 24. In order to wash the clothes, the tub is given an oscillatory movement, which movement is limited by the lever 38 and the spring 48, the said lever abutting against the lugs 39 and 40 of the sleeve 36. It will therefore be obvious that as the tub moves the clothes will be brought in contact with the under surface of the stationary rubbing-disk 31 and thoroughly cleansed. After the washing operation has been completed, the rubbing-disk 31 is elevated to the position shown in dotted lines in Fig. 5, and the wringer-board is swung into the position shown in Figs. 2 and 7 and clamped firmly to the upper edge of the tub, which arrangement prevents the tub from rotating during the wringing operation and forms a rigid support for the wringer.

Having thus fully described my invention, I claim—

In a washing-machine the combination with a stand, of a sleeve secured to the said stand, a shaft journaled in the said sleeve, a rotary platform secured on the upper end of the said shaft, lugs spaced apart on the periphery of the said sleeve, a lever loosely mounted on the said sleeve and provided at one of its ends with a projection arranged between the lugs of the said sleeve, and a spring connected to the said platform and the outer end of the said lever.

In testimony whereof I affix my signature, in presence of two witnesses.

THOMAS E. BARROW.

Witnesses:

T. Y. MCCRAY,
CHAS. E. BENEDICT.