

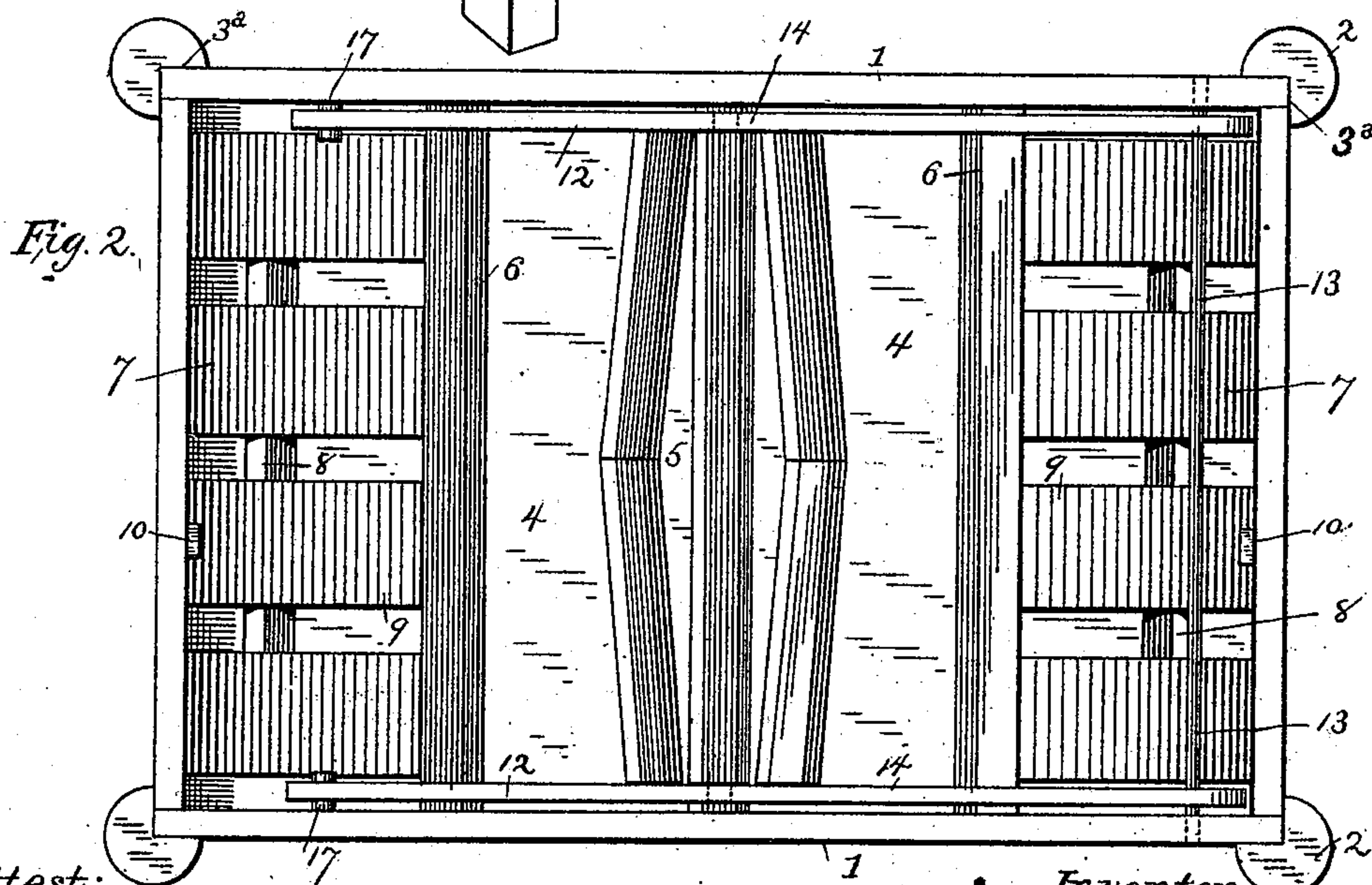
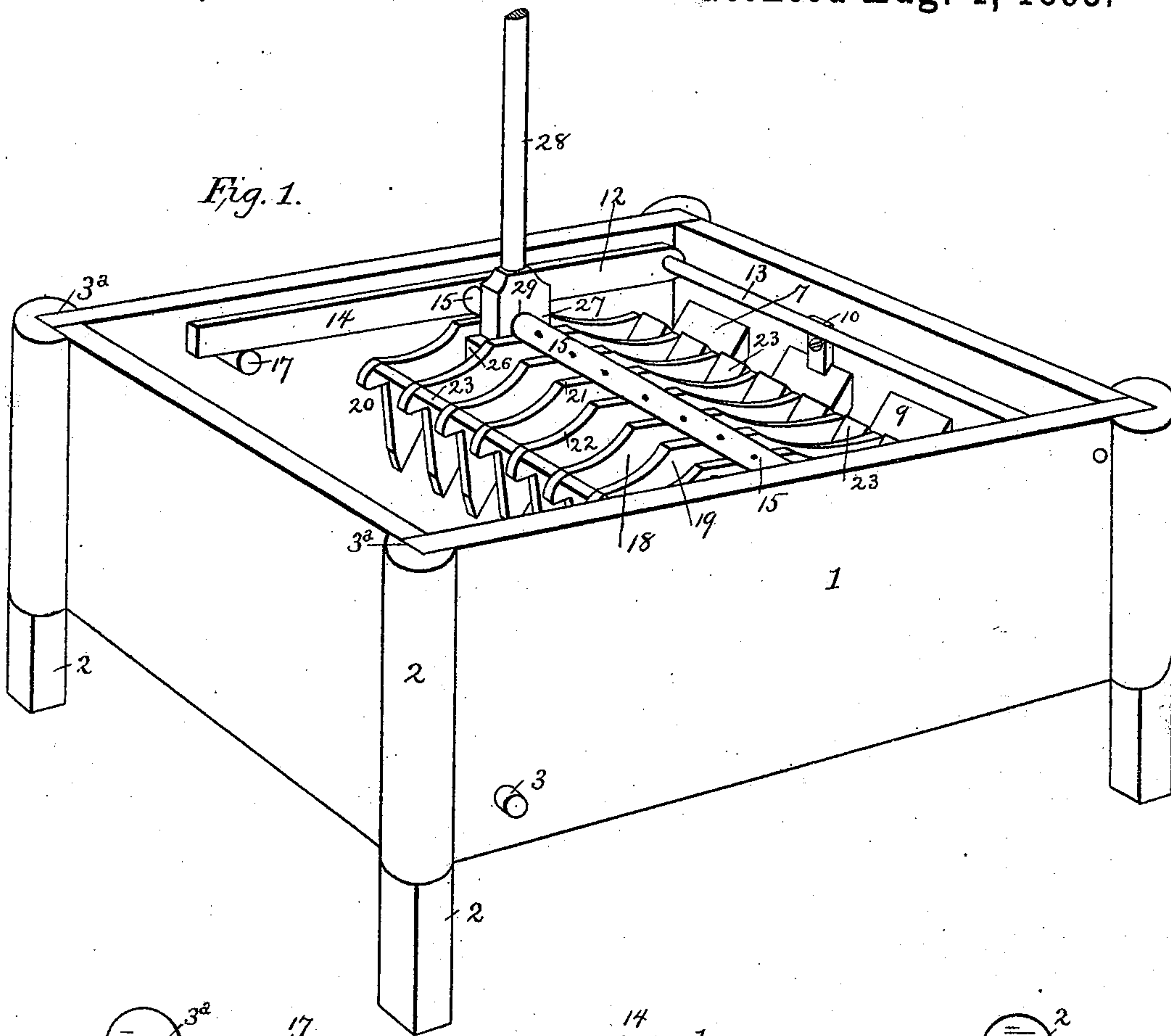
(No Model.)

2 Sheets—Sheet 1.

G. SEGER.  
WASHING MACHINE.

No. 502,680

Patented Aug. 1, 1893.



Attest:  
*Elliott Hough*  
*B. F. Hough*

Inventor:  
*Garret Seger*  
By *Chas. Gooch*  
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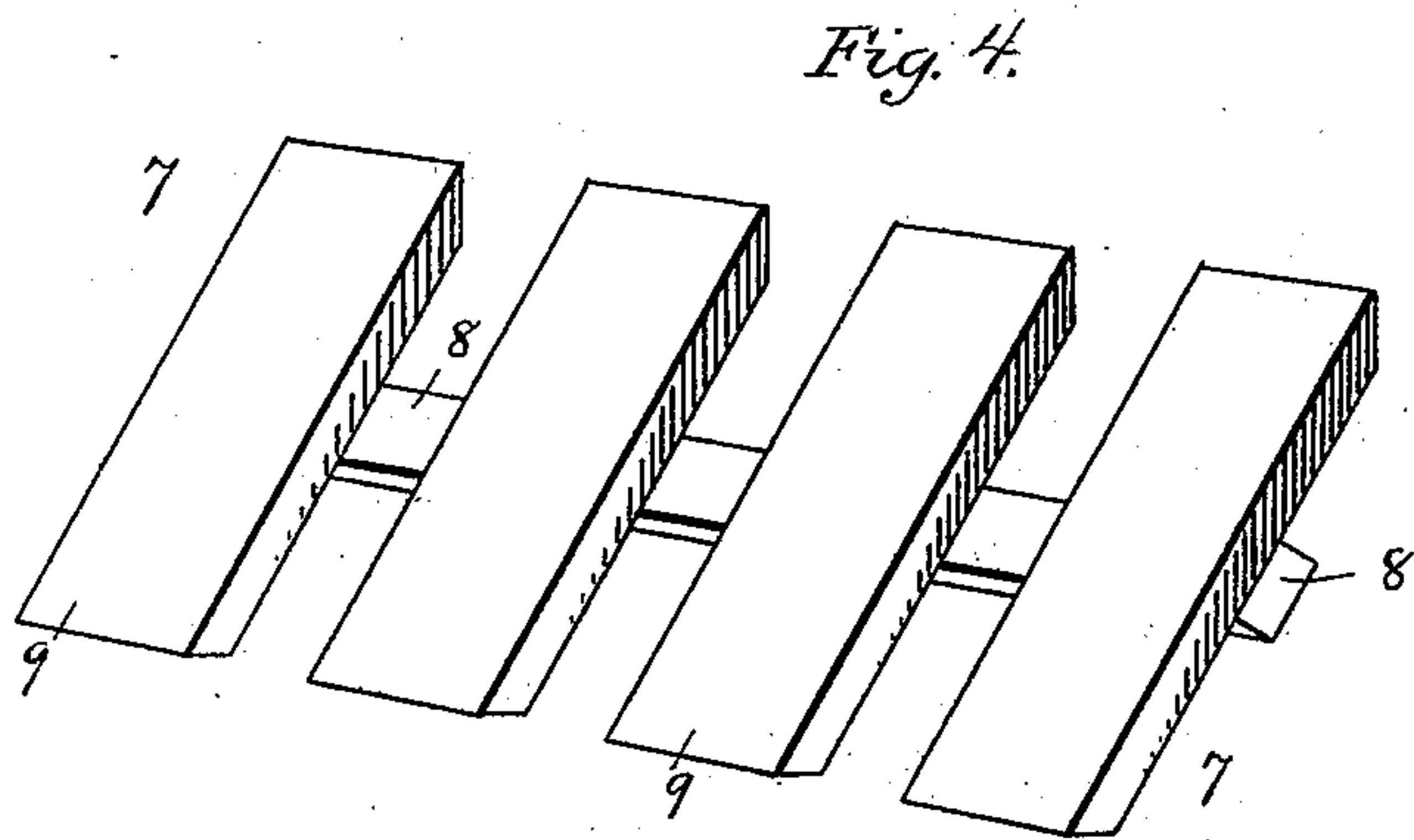
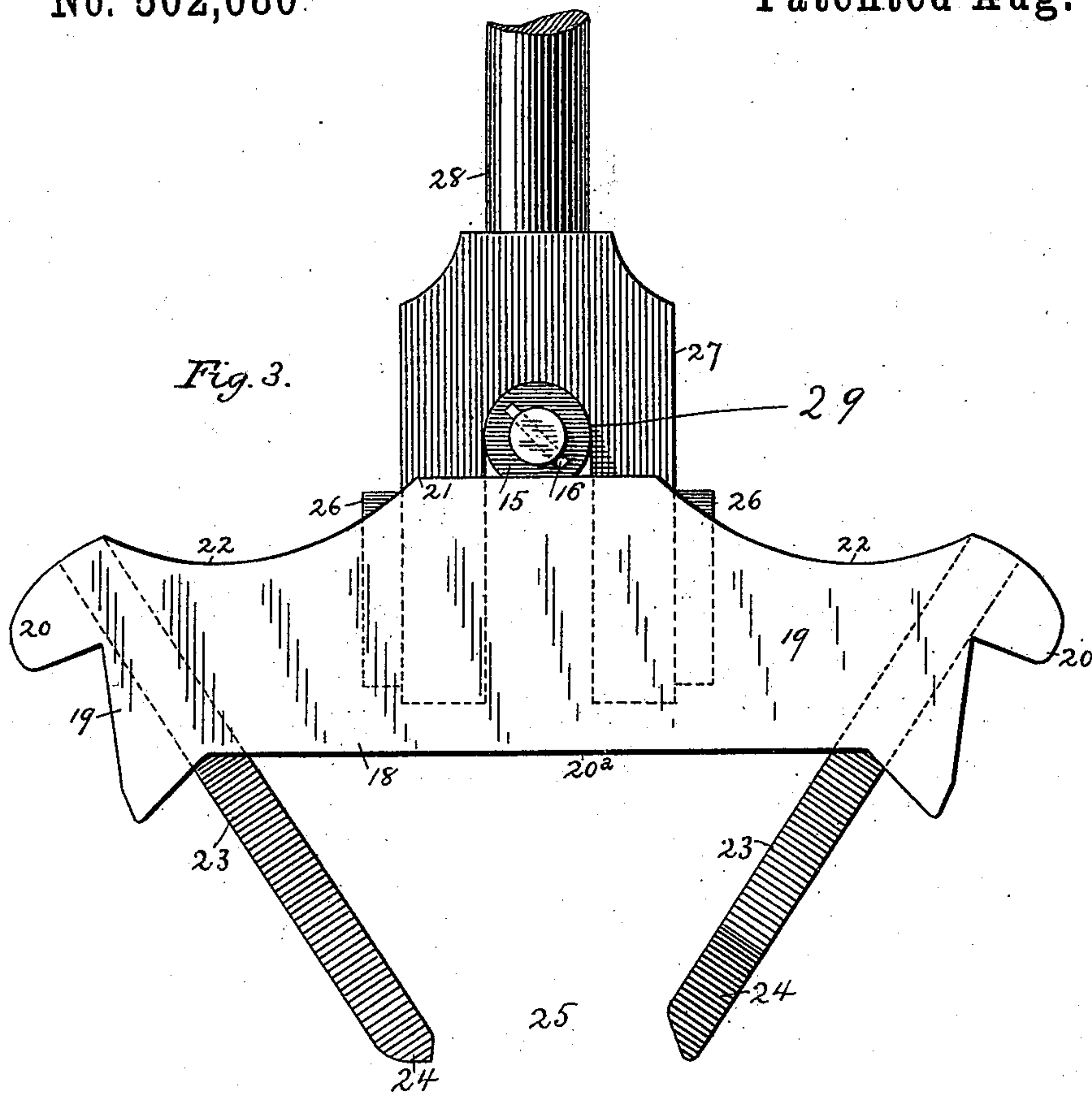
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# UNITED STATES PATENT OFFICE.

GARRET SEGER, OF BUFFALO, NEW YORK, ASSIGNOR TO ALFRED SWANSON, PETER SWANSON, FRANK SWANSON, AND ANDREW SWANSON, OF SAME PLACE.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 502,680, dated August 1, 1893.

Application filed January 17, 1893. Serial No. 458,724. (No model.)

*To all whom it may concern:*

Be it known that I, GARRET SEGER, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Washing-Machines; and I do hereby 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, as hereinafter set forth, to certain improvements in that class of washing machines where reciprocating or oscillating rubbers are employed.

In the accompanying drawings: Figure 1 represents a perspective view of my improved washing machine. Fig. 2 represents a top plan view thereof with the rubber removed. Fig. 3 represents, to an enlarged scale, an end elevation of the rubber with the operating handle in position. Fig. 4 represents a perspective of one of the removable slatted frames.

1 represents the box, within which the water, the clothes to be washed, and the rubber for rubbing them are contained.

2 represents the supporting legs which extend up to the top edge of the box and within notches or grooves 3<sup>a</sup> in which legs the respective corners of the box are secured, and 3 an outlet for the waste-water, said outlet being closed when the machine is in use by any suitable device.

The box may be of any desired external contour such as rectangular as shown. Its bottom, 4, may, on its interior, be either curved or flat as shown. I prefer that it shall be flat as thereby a more effective rubbing and movement of the clothes can be secured than where it is rounded. The bottom may be plane-faced or it may be formed with corrugations which forms it is deemed unnecessary to show as such will be readily understood and are not novel in themselves,—or transverse strips, 5, having beveled sides and tops may be attached to the bottom to secure frictional rubbing surfaces.

6 represents cleats which are attached to the bottom near each end of the box for the purpose of serving as stops and braces for

the lower edge of a slatted frame, 7, whose upper edge rests angularly against the end of the box, said frame being composed of a cross-piece, 8 and angularly-disposed slats 9 attached to said cross-piece so as to extend therefrom in an angular direction, the respective ends of said slats on their under faces being beveled as shown to adapt them to rest snugly against the bottom and ends, respectively, of the box; 10 represents turn-buttons by which said slatted frames are removably held in place. The object of these slatted frames is to furnish, at each end of the box, a shield or guard-stop to receive the impact of the clothes while being rubbed and reciprocated from end to end of the box and prevent them settling in the ends of the box out of reach of the rubber.

12 represents the rubber-supporting frame or hanger which is pivotally journaled at its rear on a rod 13 having rotary bearing in the sides of the box; its front ends extending forwardly and resting upon stops 17 on the sides of the box. In the central portion of the side members, 14, of this frame or hanger, 12, the shaft 15 of the rubber is loosely journaled so as to freely rock and oscillate therein within the arc of a circle; 16 represents keys or pins passing through the ends of the shaft 15 to maintain it in position within the frame 12; the studs or stops 17 which project inwardly from each side of the box serve as supports for the frame 12 and rubber while operating in their normal positions; the studs or stops 17 serve, also, to support the rubber sufficiently above the bottom of the box to prevent it exerting too much friction upon the clothes, when but a small quantity is contained within the box, and thereby injuring the fabric and removing buttons therefrom. The frame 12 serves as a support and hanger to the rubber. By pivoting said frame at the rear, as shown, when the quantity of clothes in the box is large enough to raise the rubber above its normal position of rest upon the studs 17, said rubber-supporting frame will afford support to said rubber in its elevated position; furthermore, by such pivotal connection the said frame 12 can be raised vertically so as to carry



the rubber out of and rearwardly of the box when it is desired to supply clothing to or remove the same from the box.

The rocking rubber 18 is of sectional construction, and of approximately curved outline at bottom, rear and front. It is composed of a series of strips, or plates 19 each having at their front and rear edges curved downwardly-extending teeth or fingers, 20, a straight central bottom edge, 20<sup>a</sup>, a straight, raised central portion 21 at its top edge, at which point it and the rocking shaft 15 are attached by nails or otherwise, and concaves 22, on each side of said raised central portion 21. Mediatly of each pair of said curved and fingered strips 19, and secured thereto by nails or similar devices passed transversely there-through are tightly-fitting strips 23 which extend downwardly at a converging angle toward the center of the rubber, the lower ends 24 of said strips being beveled as shown and extending vertically beyond and inwardly of the lower teeth or fingers 20. The angle of inclination of said strips 23 is such, as shown, as to leave a space 25 between them through which water will freely pass as the rubber is rocked.

26 represents blocks secured between the two end strips, or plates 19, at one end of the machine, one on each side of the rocking shaft 15, between which the bifurcated lower end 27 of the lever and handle 28 is inserted; the arch 29 of said bifurcation, in use, gripping the rocking shaft and the legs of the bifurcated end of the lever or handle passing between and frictionally gripping the sides of said shaft and the blocks 26 on either side thereof, whereby a firm and rigid connection between said handle and rocking rubber is secured without the use of nails or other devices for permanently securing said lever or handle in position; the operating lever can thus be readily removed at any time, which is a convenience in packing, storing and transportation.

The operation of my improved washing machine will, it is believed, be readily apparent to those skilled in this art. It may not, however, be amiss to indicate some of the advantages due to the construction herein set forth. The rocking rubber 18 having been raised and a suitable quantity of water and soap or other cleansing material with the clothes to be cleaned having been placed in the box, 1, the rocking rubber 18 and its supporting frame or hanger 12 are then lowered within the box until said frame rests upon the studs 17 or until the rubber rests upon the clothes in the box—according to the quantity of clothes under treatment. The rubber is then, by means of the handle, 28, rocked or oscillated in contact with the clothes; as said rubber thus oscillates the depending central strips 23, stir and push said clothes from end to end of the box, 1, while the teeth or fingers, 20, grasp and turn over and over and agitate the clothes. The rubber oscillates in the direction of the

arc of a circle and forces the clothes up against the removable slatted frames, 7, at the ends of the box which act as guards or stops to prevent the clothes, especially the small ones, settling in the ends of the boxes, and also serve to keep all the clothes within the arc of movement of said rubber, 18, so that they shall always be in position to be operated upon by said rubber during its oscillatory movements; the central depending inwardly-converging strips, 23, also operate to keep the clothes in a substantially central position within the box. It will be observed that spaces exist between the respective strips, 23, at their lower portions, and that a transverse space, 25, exists centrally of the bottom of the rubber and between the ends of said strips, 23, and, also that spaces or ways, communicating with the space 25, exist, centrally between the fingered strips 19. As the rubber is rocked in one direction a portion of the water is projected forwardly of the clothes against the end of the box; on its impact therewith the water rebounds and passes back through the said spaces or ways in the rubber to the opposite end of the box; then, on the return movement of the rubber, the clothes are carried into and agitated within the body of water thus projected in advance of the movement of the clothes; by this action it will be seen that there is always a body of water at each end of the box within which the clothes are carried and agitated by the rubber 18 thereby resulting in the speedy and thorough washing of the clothes. On moving the hand lever, 28, equidistant each way from its perpendicular position the rubber will work the clothes to the center; when said hand lever is moved from its central or perpendicular position, either forwardly or rearwardly, and then back to a central position, and such movements repeated, the result will be that the clothes will be drawn toward one end of the box and against the slatted frame and be there subjected to the rubbing operation which results in the clothes being rubbed in a manner similar to hand rubbing though, of course, such rubbing is more effectively and more rapidly performed by my machine than could possibly be done by hand.

Having thus described my invention, what I claim is—

1. A washing-machine consisting of a box, a hinged or pivoted rubber-supporting frame and a rubber having a series of strips or plates having front and rear downwardly-curved fingers or teeth and a series of depending strips interposed between said fingers and converging inwardly therefrom, substantially as and for the purpose set forth.

2. A washing-machine, consisting of a box having inwardly-extending rocker or rubber-supporting pins, a rubber-supporting frame or hanger having pivotal bearing within said box, a rocker-shaft pivotally journaled in said frame or hanger, a rocker or rubber secured to said rocker-shaft and composed of a series



of strips or plates having down-curved fingers or teeth at their front and rear edges and a series of depending, inwardly-converging strips interposed between said fingered plates, 5 and an operative lever or handle connected with said rocker-shaft and rocker, substantially as and for the purpose set forth.

3. A rubber for washing-machines, consisting of a rocking-shaft, an operative lever or 10 handle having a bifurcated lower end, a series of strips or plates attached to said shaft and having front and rear downwardly-extending curved teeth or fingers, blocks interposed between one pair of said strips or plates and adjacent to said shaft to grippingly receive the bifurcated end of said lever or handle, and a plurality of depending and inwardly converging 15 strips interposed between said strips or plates, substantially as and for the purpose set forth.

4. A rubber for washing-machines, consisting of a rocking shaft, an operative lever or 20 handle, a series of strips, or plates secured to said shaft and having downwardly-curved fingers or teeth at their front and rear edges, a series of strips interposed between said fingered strips or plates and extending downwardly and inwardly therefrom said downwardly-extending strips being spaced between 25 their lower edges and also between their ends to form transverse and longitudinal ways in the bottom of said rubber for the passage of 30 water, substantially as set forth.

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

GARRET SEGER.

Witnesses:

CHAS. J. GOOCH,  
S. BRASHEARS.