No. 835,591. PATENTED NOV. 13, 1906.

N. ALLGIER.

WASHING MACHINE.

APPLICATION FILED JUNE 12, 1903.

2 SHEETS—SHEET 1.

Fig. 1.

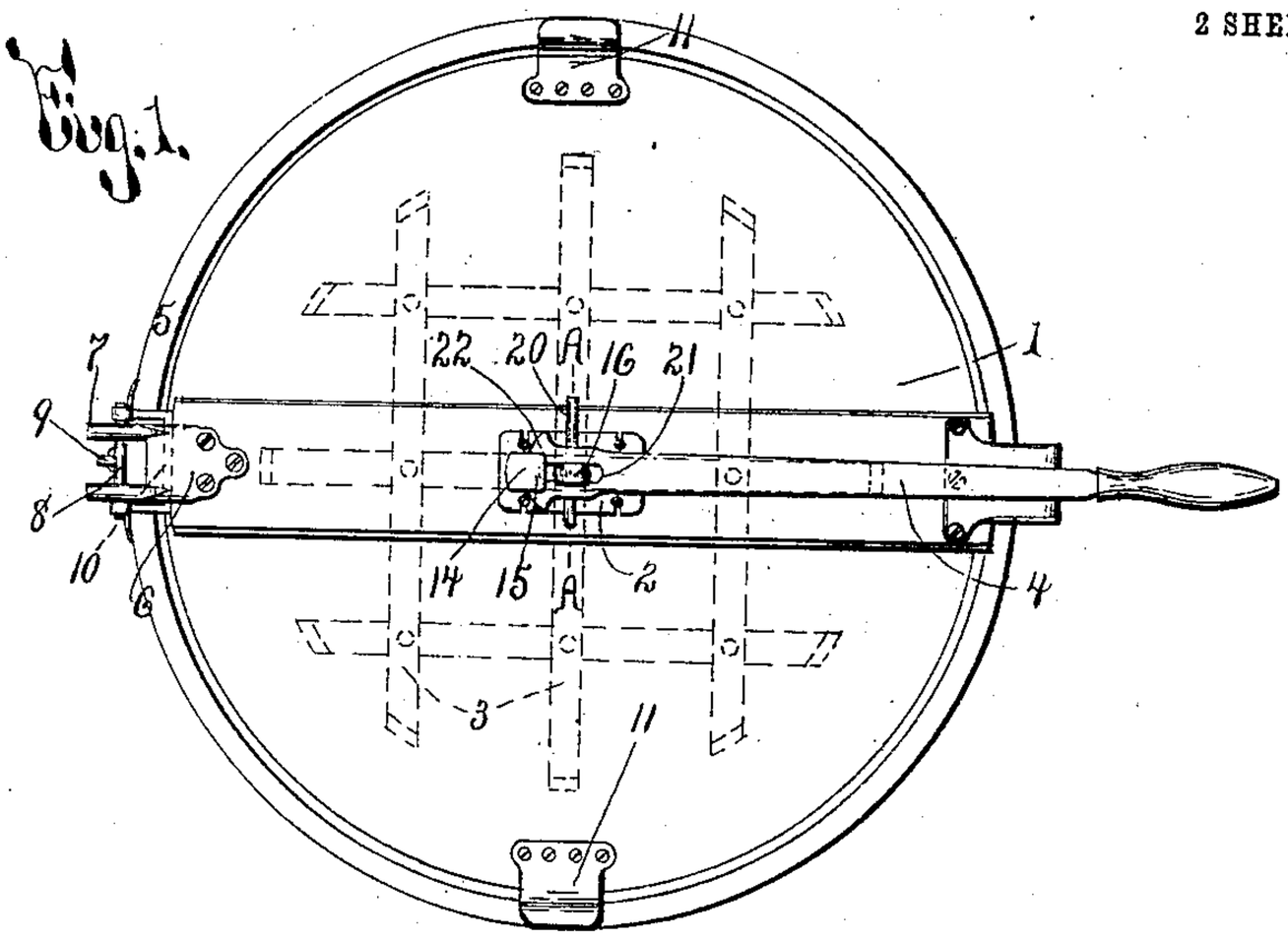
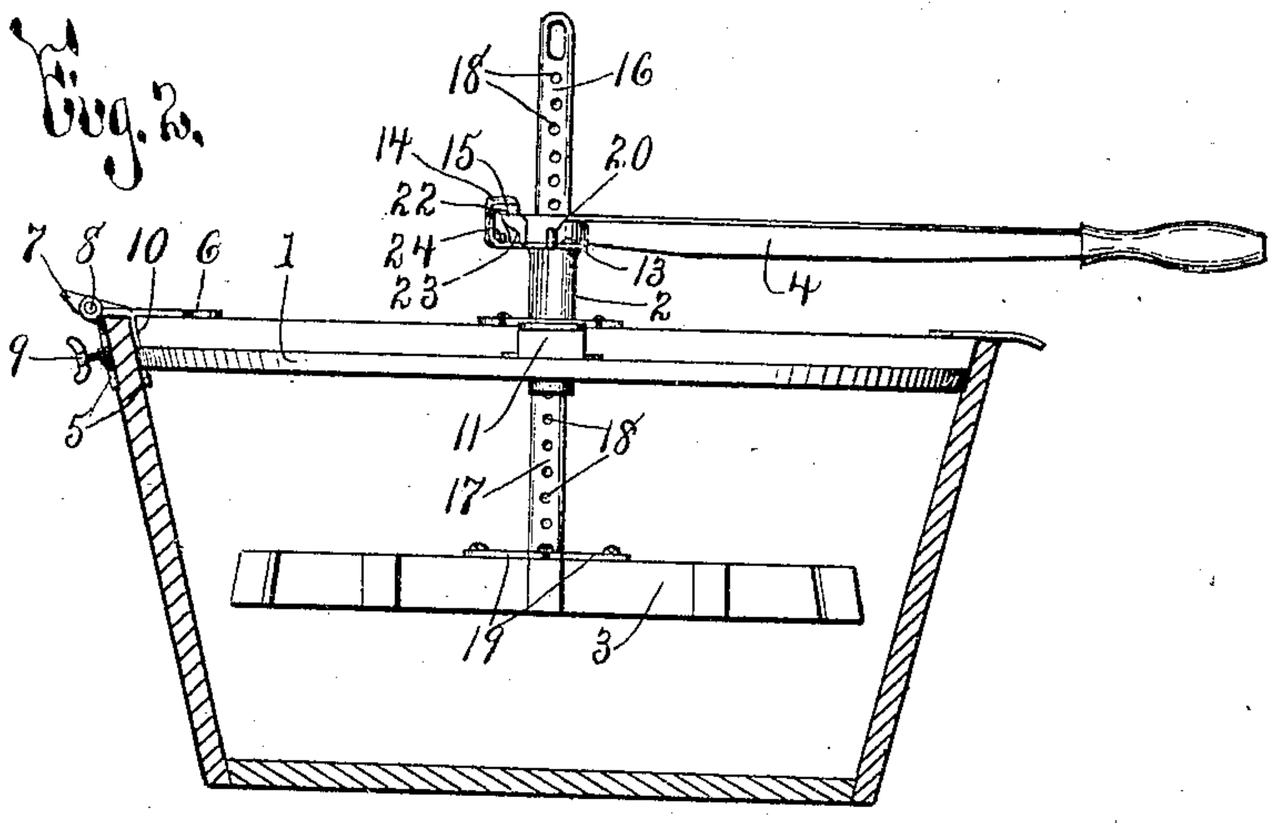


Fig. 2.



WITNESSES:

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Chas. P. Young.

INVENTOR

Nelson Allgier

BY

Hey & Parsons

ATTORNEYS

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2 SHEETS—SHEET 2.

Fig. 5.

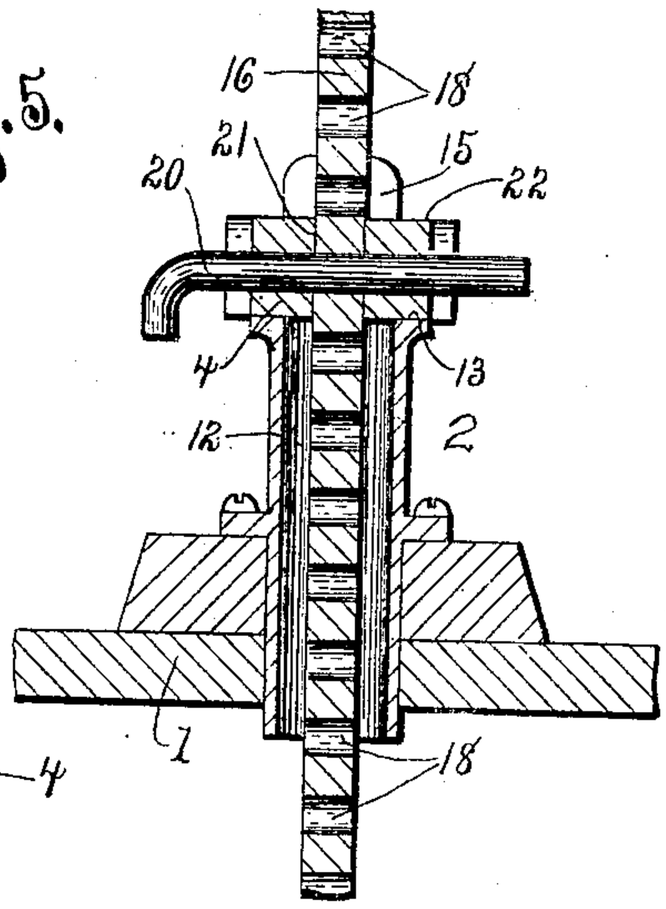


Fig. 3.

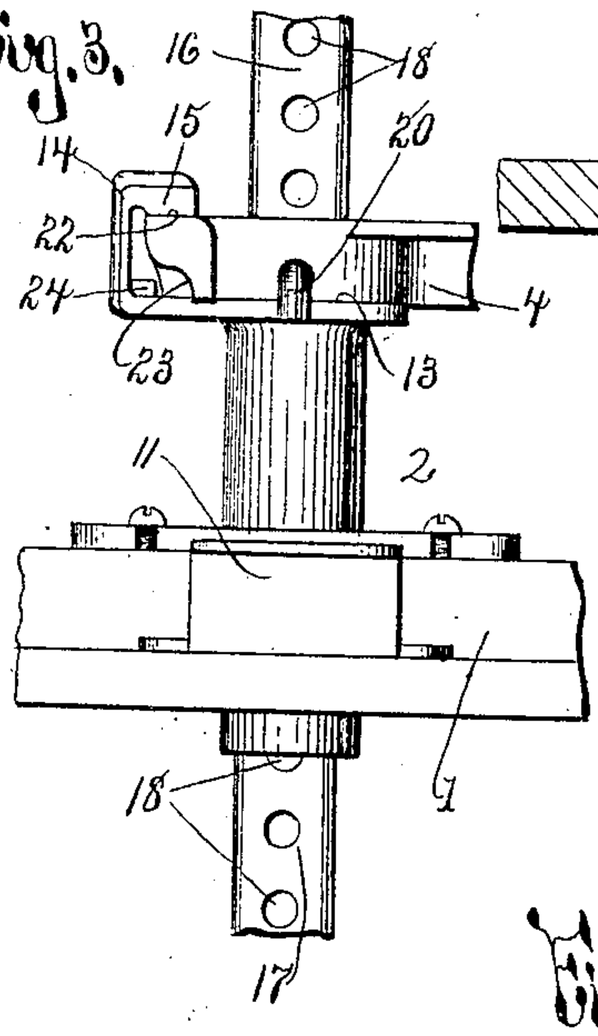


Fig. 4.

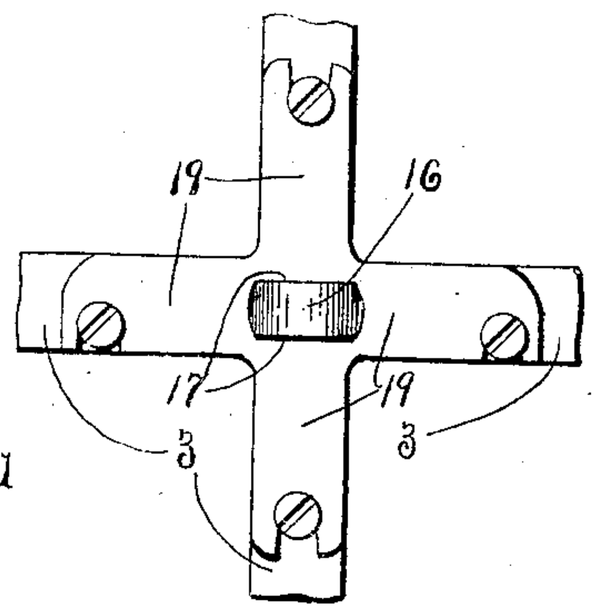


Fig. 6.

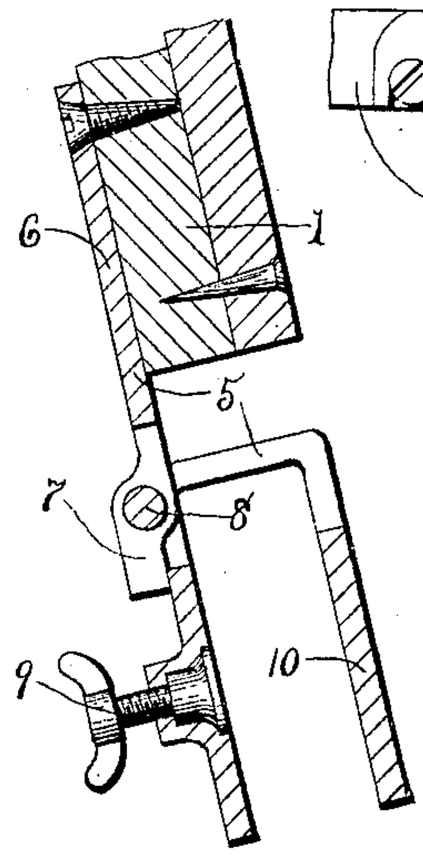
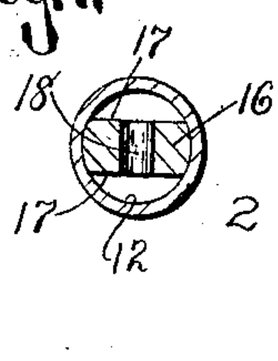


Fig. 7.



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UNITED STATES PATENT OFFICE.

NELSON ALLGIER, OF SYRACUSE, NEW YORK.

WASHING-MACHINE.

No. 835,591. Specification of Letters Patent. Patented Nov. 13, 1906.

Application filed June 12, 1903. Serial No. 161,140.

To all whom it may concern:

Be it known that I, NELSON ALLGIER, of Syracuse, in the county of Onondaga and State of New York, have invented a certain new and useful Washing-Machine, of which the following is a specification.

My invention has for its object the production of a particularly simple and efficient washing-machine; and to this end it consists in the novel combinations, constructions, and arrangements of parts, as hereinafter set forth and claimed.

In describing this invention reference is had to the accompanying drawings, in which like characters designate corresponding parts in all the views.

Figure 1 is a top plan of my washing-machine. Fig. 2 is a side elevation of the same, the main part of the tub being in section. Fig. 3 is an enlarged view of the central support and contiguous parts. Fig. 4 is a plan of the shaft and portions of the rubber. Fig. 5 is an enlarged vertical sectional view on line A A, Fig. 1. Fig. 6 is an enlarged sectional view of the hinge and the contiguous portion of the cover. Fig. 7 is a sectional view of the central support and the shaft journaled in the bearing of said support.

This washing-machine comprises a closed tub including a cover 1, a support 2 mounted on the cover, a rubber 3, and an operating-lever 4. The cover 1 supports the movable parts of the washing-machine and is preferably detachably secured to the main part of the tub by a hinge 5, the part 6 of said hinge secured to the cover being provided with shoulders 7, which project beyond the hinge-pin 8 for engaging the other part of the hinge and limiting the upward movement of the cover 1. Said other part of the hinge is provided with clamping means for detachably securing the hinge to the main part of the tub, said means being here shown as consisting of a thumb-screw 9 for engaging the outer face of the side wall of the tub and coöperating with a jaw 10, which engages the inner face of said side wall. It is obvious, however, that the hinge may be secured to the tub in any suitable manner. Usually said cover when in operative position is depressed below the plane of the upper edge of the side wall of the tub and is provided with upwardly and outwardly extending lugs 11, which engage the upper edge of said side wall.

The support 2, which may be of any suitable form, size, and construction, is fixed on the cover centrally thereof, is formed with a vertical bearing 12, an annular engaging face 13 surrounding the bearing 12, and with an arm 14 usually formed integral therewith and extending upwardly at one side of the axis of the bearing and then inwardly toward said axis, thereby forming an overhanging shoulder 15.

The rubber 3 is of any desirable form, size, and construction, is adjustable toward and from the cover 2 to regulate the space in the tub for receiving the clothes to be washed, and is provided with a shaft 16, journaled in the bearing 12. As best seen in Fig. 7, the shaft 16 is formed with opposite convex sides conforming to the bearing 12 and with opposite flat sides 17, said shaft being movable endwise in the bearing to adjust the rubber toward and from the cover and being formed with openings 18 extending through the flat sides 17 for receiving a pin 20. As illustrated in Fig. 4, this shaft 16 is formed with integral laterally-extending arms at its lower end, which are secured to the rubber 3 for forming a rigid connection between the shaft 16 and said rubber 3.

As best illustrated in Fig. 1, the operating-lever 4 is formed intermediate of its ends with an opening or slot 21 extending through its upper and lower faces for receiving the shaft 16, opposite walls of said slot being engaged with the flat sides 17 of the shaft 16, thus forming a connection between the shaft 16 and the lever 4, by which the oscillating movement of the lever is transmitted to the shaft 16 and the rubber 3. Said lever is also connected to the shaft 16 by the pin 20, extending through the lever 4 and one of the openings 18 in the shaft for preventing endwise movement of the shaft 16 relatively to the lever 4 and holding the rubber in its adjusted position. This lever 4 is engaged with the annular bearing-face 13 and interlocks with the arm 14, being here shown as provided with a bearing-face 22, arranged concentric with the axis of the shaft 16 and slidably engaged with the lower face of the overhanging shoulder 15. Said shoulder 15 forms a bearing for the lever 4, thereby causing the rubber to be held against the clothes in the tub and preventing the clothes in the tub from forcing the rubber toward the cover and moving the shaft endwise in the bearing 12. As is obvious, the proximity of the shoulder 15 to the axis of the shaft reduces to a minimum the friction between the lever

and said shoulder 15, and it will be noted that the shaft 16 and the lever 4 are supported by the central support 2. Shoulders 23, located at opposite ends of the bearing-face 22 and movable into engagement with a stop 24 on said support, limit the oscillating movement of the operating-lever 4.

The construction and operation of my washing-machine will now be readily understood upon reference to the foregoing description and the accompanying drawings, and it will be noted that more or less change may be made in the component parts thereof without departing from the spirit of my invention.

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

1. A washing-machine comprising a closed tub including a cover, a bearing fixed on the cover, a shoulder at one side of the axis of the bearing, said shoulder being fixed relatively to the cover, a rubber having a shaft journaled in the bearing, a lever having an opening intermediate of its ends for receiving the shaft, contiguous surfaces of the shaft and lever being flattened for facilitating turning of the shaft by the lever, said shaft being adjustable endwise relatively to the lever, and one of the ends of the lever being slidably engaged with said shoulder, and means for preventing endwise movement of the shaft relatively to the lever, substantially as and for the purpose specified.

2. A washing-machine comprising a closed tub including a cover, a support fixed on the cover and comprising a vertical bearing and an arm extending upwardly from the bearing at one side of the axis thereof and also extending inwardly toward said axis forming an overhanging shoulder, a rubber having an upright shaft journaled in the bearing, a lever having an opening intermediate of its ends for receiving the shaft, contiguous surfaces of the shaft and lever being flattened for facilitating turning of the shaft by the lever, said shaft being adjustable endwise in the bearing relatively to the lever and provided with a plurality of openings one above the other, one of the ends of the lever being slidably engaged with the lower face of said shoulder, and a pin passed through the lever and one of the openings of the shaft, substantially as and for the purpose described.

3. A washing-machine comprising a cover, a support having a vertical bearing said support being mounted on the cover, and being provided with an arm extending upwardly and inwardly toward the center of the bearing, forming an overhanging shoulder, a rubber having a shaft journaled in the bearing, and a lever secured to the shaft for actuating the same in the bearing, said lever having one end slidably engaged with said overhanging shoulder, substantially as and for the purpose set forth.

4. A washing-machine, comprising a cover, a support having a vertical bearing mounted on the cover, said support being provided with an integral arm extending upwardly and inwardly toward the center of the bearing, said arm forming an overhanging shoulder, a rubber having a shaft journaled in the bearing, and a lever secured to the shaft for actuating the same in the bearing, said lever having one end slidably engaged with said overhanging shoulder, substantially as and for the purpose set forth.

5. A washing-machine comprising a cover having a support mounted thereon, said support being formed with a vertical bearing, a rubber having a shaft journaled in the bearing, said shaft having convex sides to conform to the bearing, and permit oscillation of the shaft in the bearing, and also opposite flat sides and a lever for actuating said rubber, said lever having a slot for receiving the shaft, opposite walls of said slot being engaged with the flat sides of the shaft, substantially as and for the purpose described.

6. A washing-machine comprising a cover having a support mounted thereon, said support being formed with a vertical bearing, a rubber having a shaft journaled in the bearing, said shaft having convex sides to conform to the bearing and permit oscillation of the shaft in the bearing, and also opposite flat sides, said shaft being also movable endwise in the bearing for adjusting the rubber toward and away from the cover and being provided with openings extending through said flat sides, a lever for actuating the rubber, said lever having a slot for receiving the shaft, opposite walls of the slot being engaged with the flat sides of the shaft, and a pin passed through the lever and one of the openings in said shaft for holding the rubber in its adjusted position, substantially as and for the purpose described.

In testimony whereof I have hereunto signed my name, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 8th day of June, 1903.

NELSON ALLGIER.

Witnesses:

CHAS. J. TONER,

ENA C. LUDDINGTON.