No. 859,597. PATENTED JULY 9, 1907.

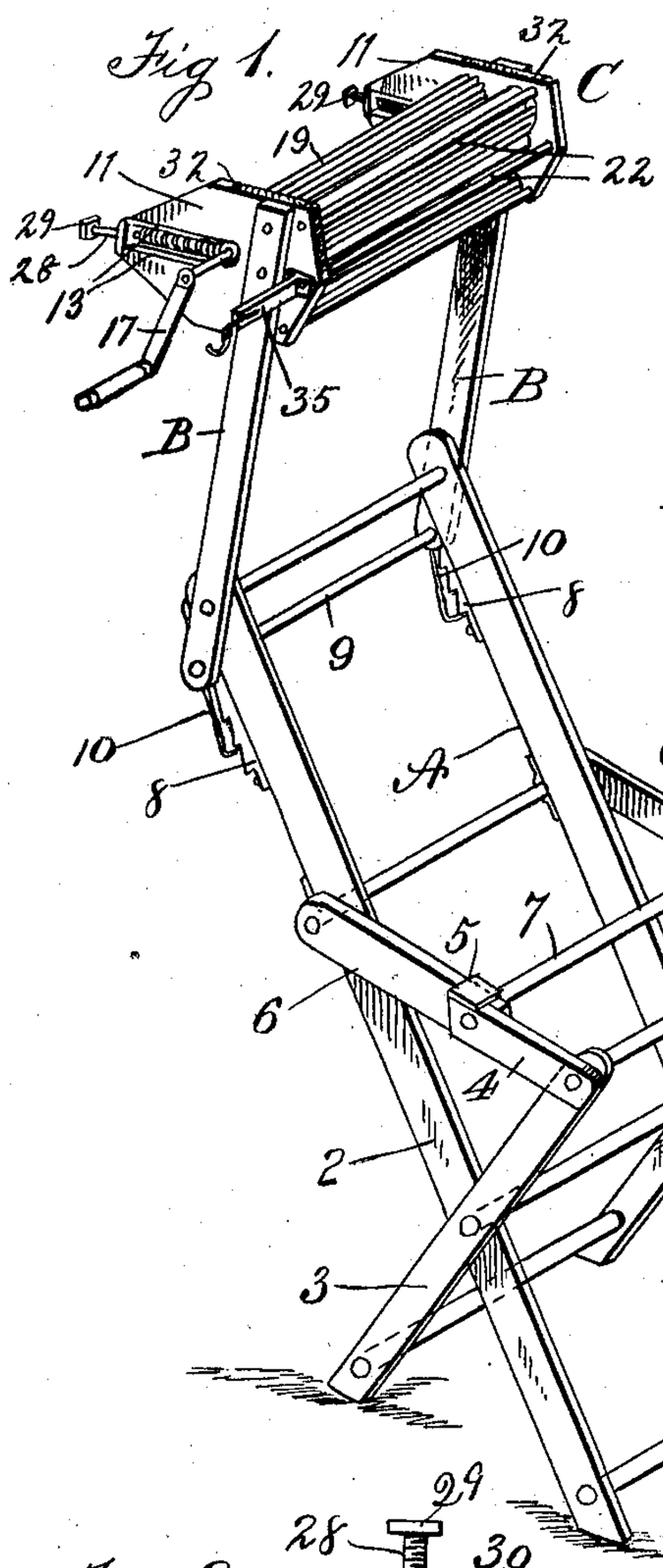
J. L. & J. W. DAVIS.

WASHING MACHINE.

APPLICATION FILED AUG. 31, 1906.

2 SHEETS—SHEET 1.

Fig 1.



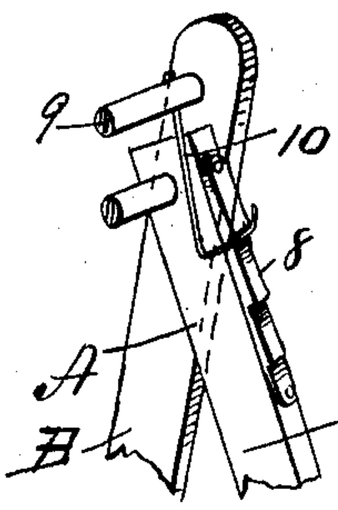


Fig. 7.

Fig. 2.

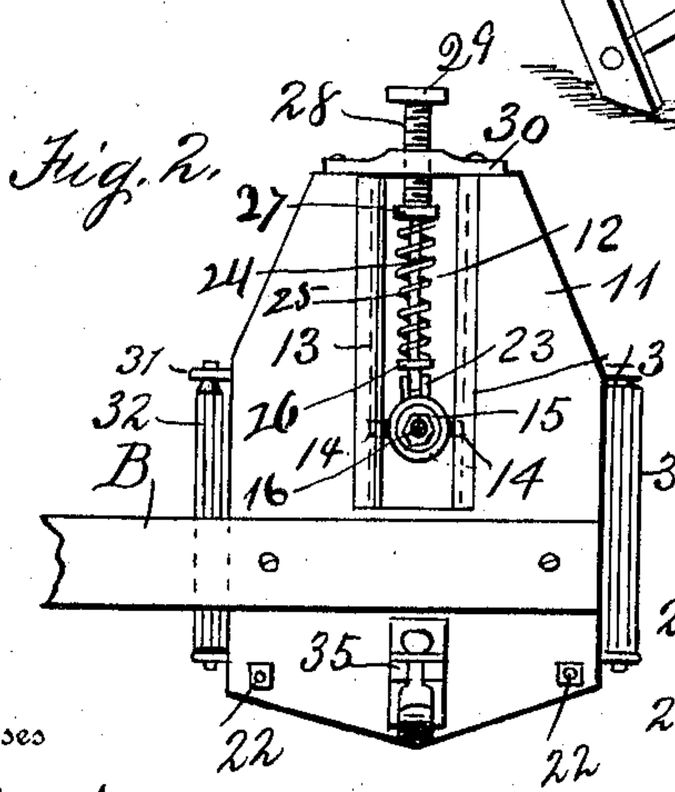
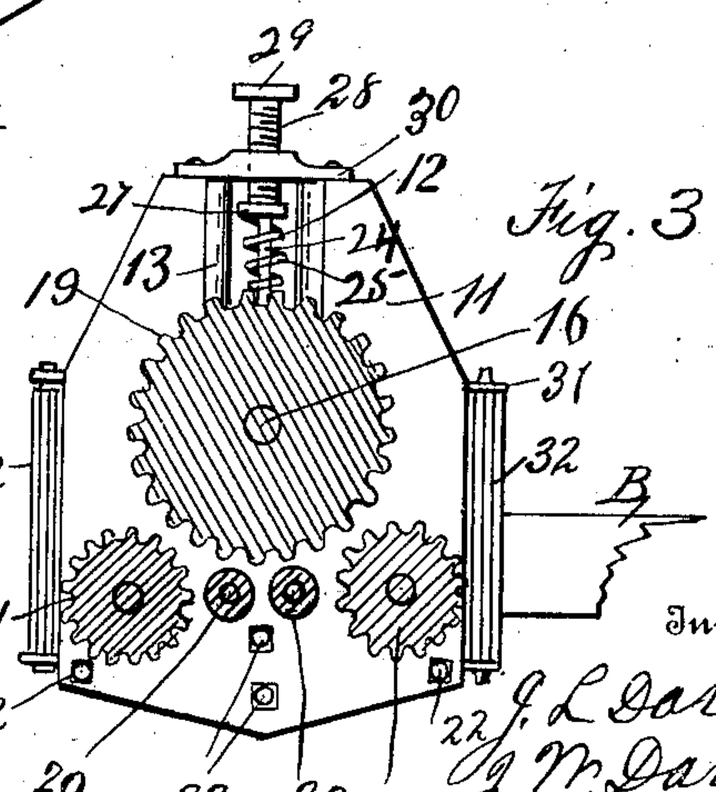


Fig. 3



Witnesses

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2 SHEETS—SHEET 2.

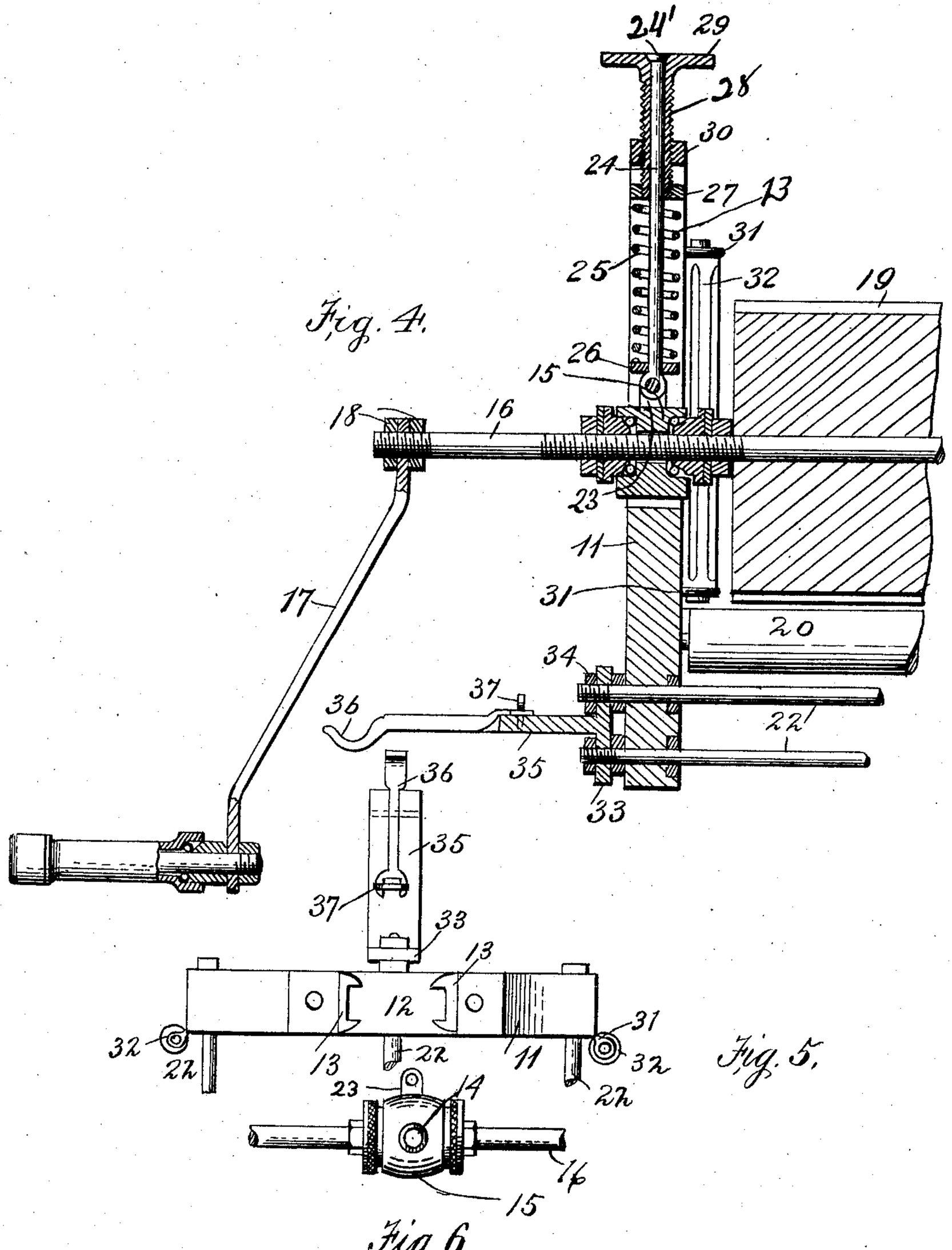

Fig. 4.

Fig. 5.

Fig. 6.

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UNITED STATES PATENT OFFICE.

JOHN LAFAYETTE DAVIS AND JOHN WESLEY DAVIS, OF CLARENDON, TEXAS.

WASHING-MACHINE.

No. 859,597. Specification of Letters Patent. Patented July 9, 1907.

Application filed August 31, 1906. Serial No. 332,762.

To all whom it may concern:

Be it known that we, JOHN LAFAYETTE DAVIS and JOHN WESLEY DAVIS, citizens of the United States, residing at Clarendon, in the county of Donley and State of Texas, have invented certain new and useful Improvements in Washing-Machines, of which the following is a specification.

Our invention has relation to new and useful improvements in the patent to J. L. Davis, No. 671,436, dated April 9, 1901.

In the accompanying drawings in which like parts are designated by like characters throughout the several views:—Figure 1, is a perspective view of my invention. Fig. 2, is an end view of the washing device. Fig. 3, is a cross sectional view of the washing device. Fig. 4, is a vertical longitudinal sectional view of one end of the washing device with the tub holder secured in position shown also partly in section. Fig. 5, is a top plan view of the head blocks with the tub holder secured in place. Fig. 6, is a top plan view of one of the ball bearings for the shaft for the main roller and a section of said shaft. Fig. 7, is a detail perspective view, showing the upper end of one of the side beams of the frame, the lower end of one of the beams pivoted to the upper ends of the side beams and one of the notched bars and hooks for adjusting the pivoted beams.

Our invention is described as follows:—A designates the folding frame, on which may be mounted a tub of suitable construction (not shown).

The numeral 2 represents the side beams of the frame, to which are pivoted foot beams 3. Pivoted to the upper ends of said foot beams at their outer ends are two short beams 4, each of which is provided at its inner end with a check plate 5, which bear against the upper edges and inner ends of short beams 6, pivoted at their outer ends to the side beams 2 of said frame A and at their inner ends to the inner ends of said beams 4 by a cross rod 7. Said beams 4 and 6 afford a seat for the tub.

Pivoted between the upper ends of said side beams 2 are beams B, between the free ends of which is rigidly secured the washing device C.

Rigidly secured to the upper ends and under edges of said side beams 2, are notched bars 8, and secured at their upper ends to the outer ends of a cross rod 9 secured between the pivoted ends of said beams B are hooks 10. Said washing device C may be suitably supported by adjusting the pivoted beams B at the desired angle and throwing the free ends of the hinged hooks 10 in engagement with the corresponding notches of said notched bars 8. Said washing device C consists of two head blocks 11, which are secured at their outer faces near their lower ends to the free ends of said pivoted beams B. Each of said head blocks is provided at its free end with a central elongated slot 12 provided at its sides with longitudinally grooved strips 13, see Figs. 2 and 3. Working longitudinally in the grooves of said strips are the lugs or ears 14, of ball bearings 15, which lugs or ears are preferably integral with said bearings and extend horizontally from the peripheries of same. Said lugs prevent lateral displacement of said bearings. Journaled near its ends in said ball bearings 15 is a horizontal shaft 16, having a crank handle 17 provided with ball bearings, see Fig. 4, removably secured on its front threaded end by nuts 18 and having rigidly connected to it a large corrugated main roller 19. Journaled in perforations in the head blocks 11 of said washing device C, immediately under said roller 19, their centers in a horizontal plane, are two small central smooth rollers 20, and two outer corrugated rollers 21, of larger dimensions. Secured at their threaded ends in corresponding perforations in the head blocks 11 of said washing device C by nuts or other equivalent means are four horizontal rods 22, two of which are in vertical alinement immediately under said smooth rollers 20 and one under each of said corrugated rollers 21, nearly contiguous with same. Each of said ball bearings 15 is provided on its periphery with an integral slotted bearing 23, to which are pivoted the lower ends of rods 24. Said rods are provided with spiral spring 25, which work around said rods 24, and between washers 26 and 27, located respectively, one at the lower and one near the upper end of each of said rods. Working around the upper ends of said rods 24, their lower ends bearing against said washers 27, are hollow exteriorly threaded screws 28, which terminate at their upper ends in suitable heads 29. Said screws work longitudinally through correspondingly threaded perforations in caps 30, secured over the free slotted ends of said head blocks. The object of said springs 25 is to allow the main roller 19 to rise or fall according to the amount of clothing that goes between it and the rollers 20 and 21. When a large amount of clothing goes between the rollers, said roller 19 is allowed to rise, and when the amount of clothing is small the springs 25 force it down and keep it tight on the clothing. The amount of pressure on the clothing, after the ball bearings 15 have reached their lowest positions, may be increased by turning the screws 28 to the right and increasing the contraction of said springs 25. To raise said main roller 19 out of contact with said rollers 20 and 21, when the washing is done, the said screws 28 are turned to the left when their heads come in contact with the heads 24′, of said rods 24 and raise same, which operation effects the raising of the ball bearings 15 and shaft 16. The said rods 22 serve as fenders to prevent the clothing from winding around the small rollers 20 and 21 and choking the washing device C. Secured to the inner faces of said head blocks 11 of said washing device C by screw eyes 31 or other equivalent means are small rollers 32, which serve to prevent the material being washed from working

in at the ends of the rollers and thus become entangled and torn.

The front ends of the two central fender rods 22 extend sufficiently beyond the outer face of the front head block of the washing device C to permit the attachment thereto of a tub holder. Said tub holder preferably consists of a block 33 provided with perforations to correspond with the outer ends of said rods and having integral with its outer face a horizontal member 35 having a longitudinal slot in its outer or free end in which is fulcrumed the front hooked end of a swinging arm 36, which terminates at its inner end in a fork. Said arm is held in a horizontal position by a thumb screw 37 secured to said horizontal member 35 and adapted to work in the forked end of said arm. The front or hooked end of said arm may be lowered by turning the head of said thumb screw out of engagement with the forked end of said arm. The swinging arm 36, passes under the bail or handle of the tub (tub not shown), and prevents it from being knocked or jarred off of the tub seat.

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

1. In a washing machine, a device consisting of two head blocks 11, each provided at its upper end with a central longitudinal slot 12; grooved strips 13, secured to said blocks at the edges of said slots; ball bearing devices 15, each provided with lugs 14, adapted to move up and down in the grooves of said strips; perforated caps 30, secured on the upper ends of said head blocks 11; slotted perforated bearings 23, one attached to each ball bearing device 15; hollow, externally threaded screws 28, working in the threaded perforations of the caps 30, and terminating in heads 29; rods 24, their lower ends pivoted in the bearings 23, their upper ends passing up through the hollow externally threaded screws 28, and terminating in heads 24^1; washers 26, working around the rods 24, near their lower ends; washers 27, working around said rods and abutting against the lower ends of said screws 28; spiral spring, coiled around said rods 24, their ends abutting against said washers; main roller 19, journaled in the ball bearings 15; central rollers 20, journaled in said head blocks immediately under said central roller, and parallel therewith; corrugated rollers 21, journaled under said main roller 19, and one on each side of the central rollers 20, and small rollers 32, journaled vertically to said head blocks, and at each end of said main roller, said washing machine adapted to be secured between the arms B, of the frame A, substantially as shown and described and for the purposes set forth.

2. In a washing device, a folding frame consisting of side beams 2, foot frames 3 and folding beams 4 and 6, beams B, hinged to the upper ends of said side beams 2, and adapted to carry between their front ends a washing device C, said beams B, adapted to be adjusted and locked at their hinged ends by means of notched bars 8, and hooks 10, secured to the upper cross rod 9, of the said side beams 2, substantially as shown and described and for the purposes set forth.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JOHN LAFAYETTE DAVIS.
JOHN WESLEY DAVIS.

Witnesses:
JNO. E. COOKE,
A. N. MELTON.