No. 881,382. PATENTED MAR. 10, 1908.

C. A. DODGE.

WASHING MACHINE.

APPLICATION FILED JAN. 5, 1907.

2 SHEETS—SHEET 1.

Fig. 3.

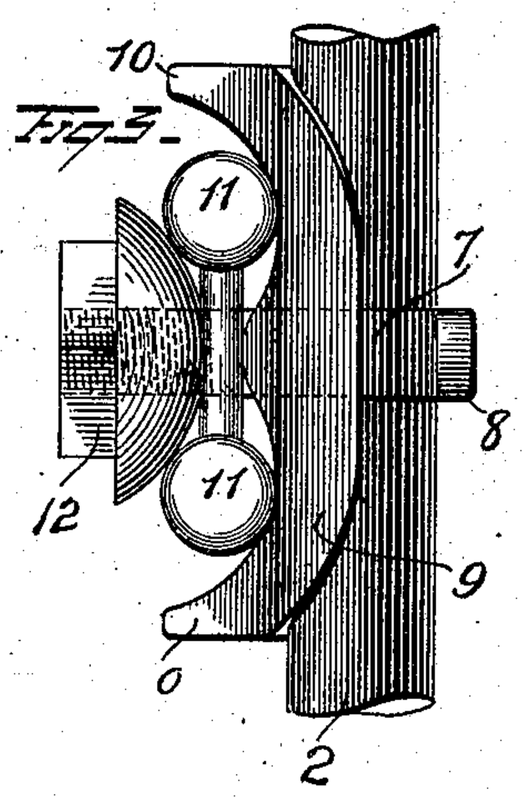
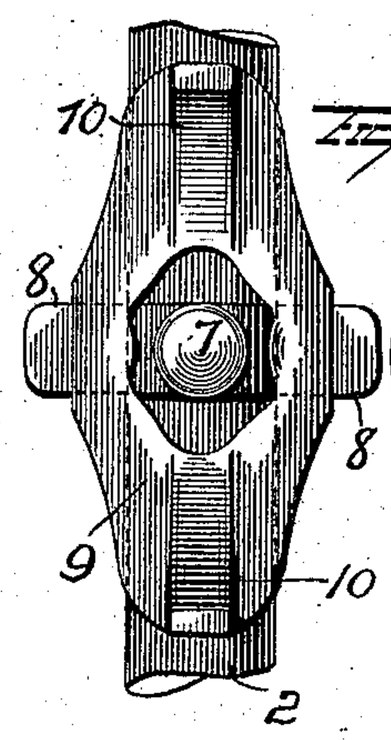


Fig. 4.



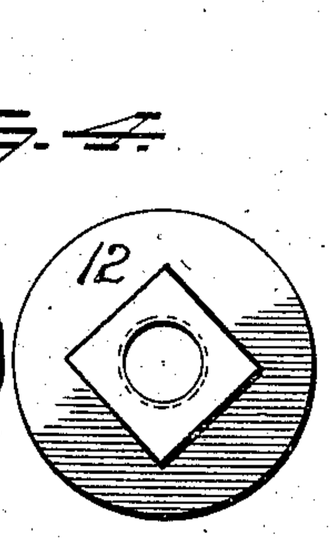


Fig. 1.

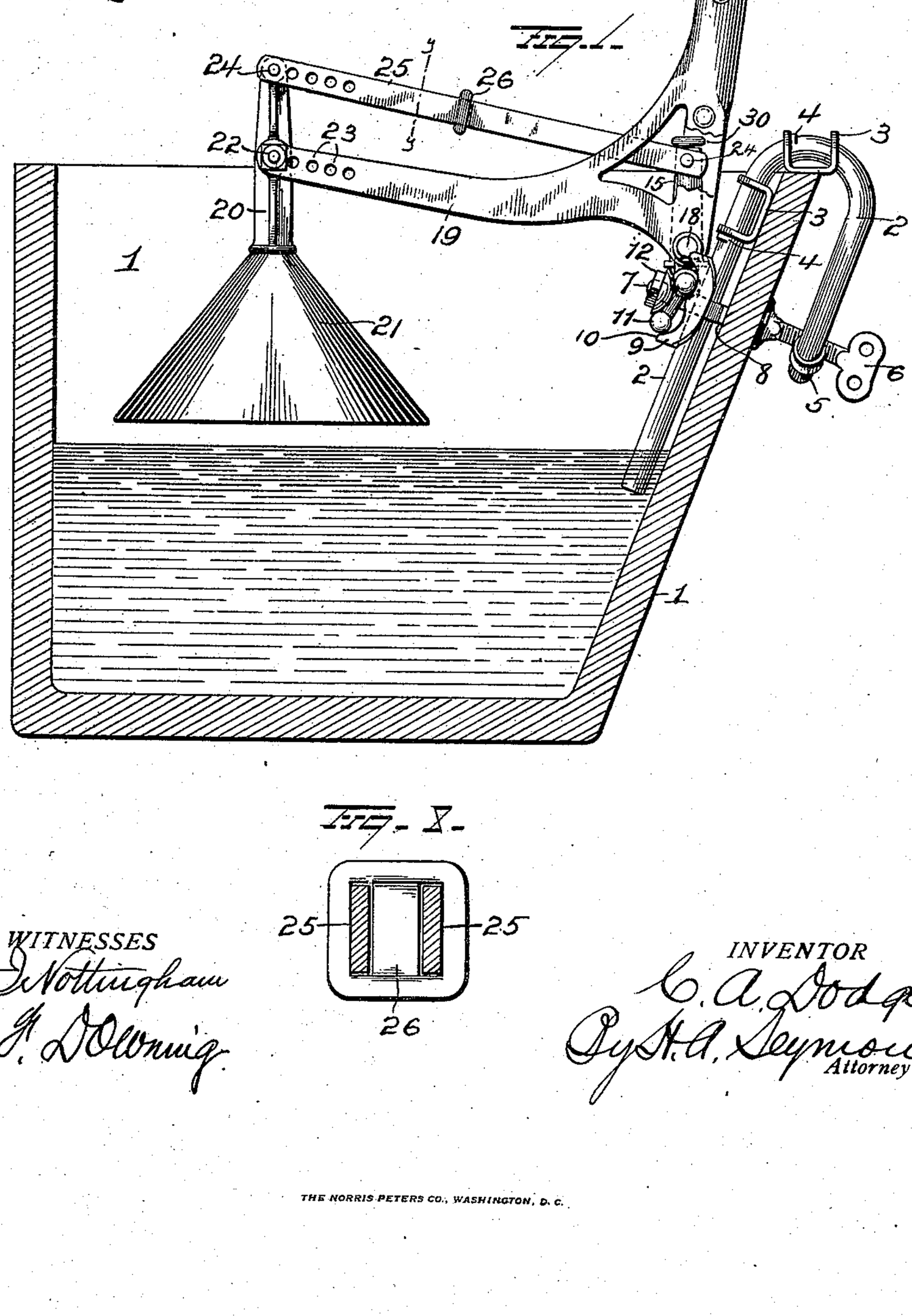


Fig. X.

WITNESSES

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2 SHEETS—SHEET 2.

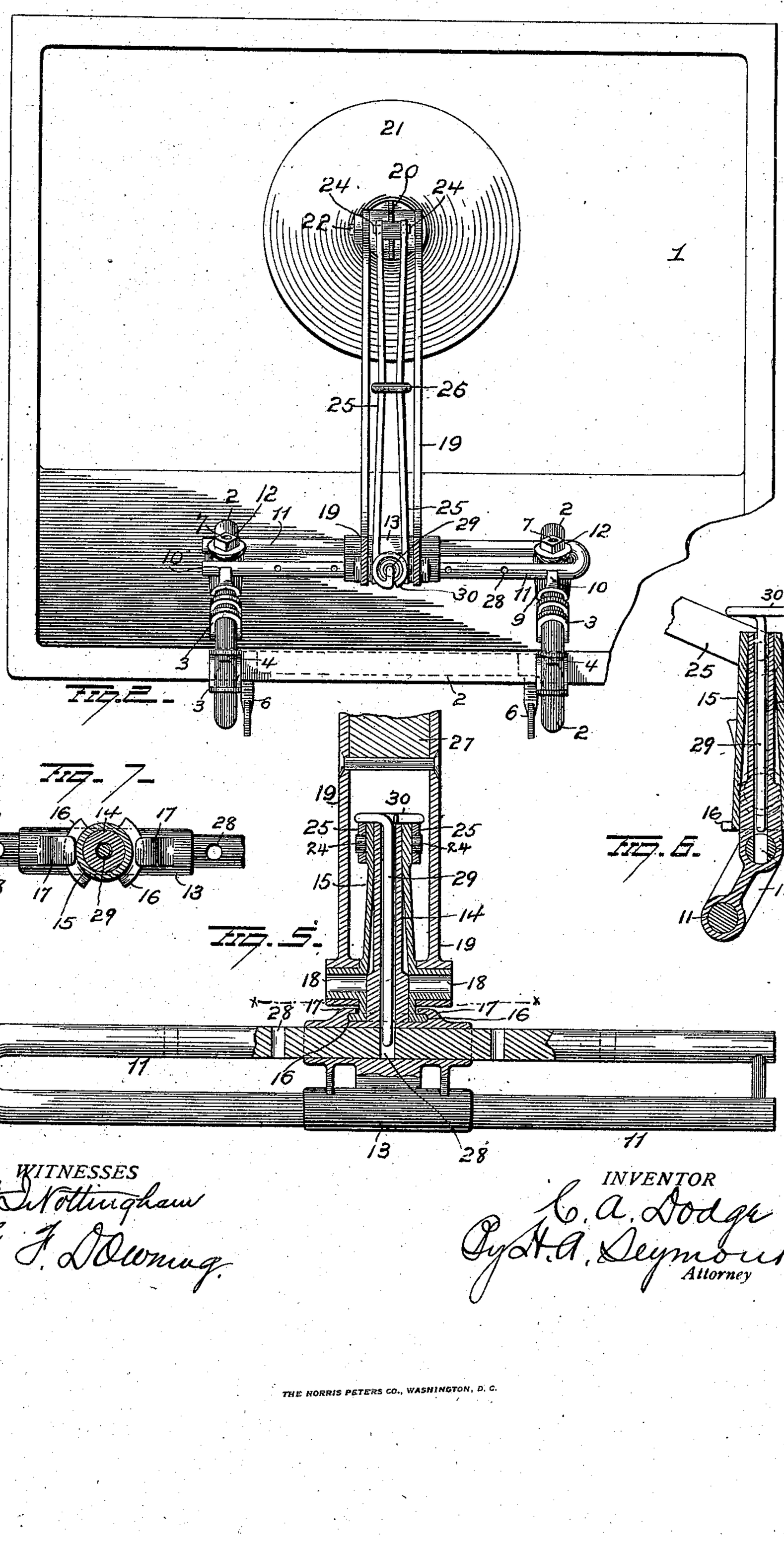

FIG. 2.

FIG. 7.

FIG. 5.

FIG. 6.

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CYRUS A. DODGE, OF SYRACUSE, NEW YORK.

WASHING-MACHINE.

No. 881,382. Specification of Letters Patent. Patented March 10, 1908.

Application filed January 5, 1907. Serial No. 350,995.

To all whom it may concern:

Be it known that I, CYRUS A. DODGE, a resident of Syracuse, in the county of Onondaga 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.

My invention relates to improvements in washing machines, and more particularly to improvements upon the construction disclosed in Patent No. 834,370, granted to me October 30th, 1906, an object of the invention being to provide an improved construction of supporting frame to be secured to the tub.

A further object is to provide improved adjustable pounder connection with links held in position by their own spring tension.

A further object is to provide improved means for unlocking the sliding support for the pounder lever.

With these and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a transverse sectional view of a set tub showing my improvements in elevation and partly broken away, applied thereto. Fig. 2 is a plan view with the tub partly broken away. Fig. 3 is an enlarged detail view partly in section, showing the supporting devices for the trackway. Fig. 4 is a detail view of one of the track supporting brackets. Fig. 5 is a plan view of the trackway with slide or carrier thereon, and Fig. 6 is a detail view in section, showing the mounting for the operating lever. Fig. 7 is a sectional view on the line *x*—*x* of Fig. 5, and Fig. 8 is a section on the line *y*—*y* of Fig. 1.

1 represents a set or fixed tub such as now in general use in laundries, having a sloping front wall.

2 represents a supporting frame, comprising a single rod bent at both ends to embrace the inclined wall of the tub, the ends of the rods extending down inside the tub the desired distance.

Tub guards 3 are located on the bent ends of the frame, and comprise sheet metal strips bent at right angles at their ends and perforated to receive the rod and presenting flat bearing faces to the upper and inner edges of the inclined wall of the tub, thereby insuring a better hold and preventing injury to the tub. These guards 3 are movable on the frame to accommodate themselves to any angle of tub wall and enlargements 4 on the frame limit the movement of the guards.

The frame 2 at the outside of the tub carries sleeves 5 provided with perforated lugs in which thumb screws 6 are mounted and said screws are provided with enlarged swivel heads at their inner ends to bear against the tub. On the depending rods of frame 2 inside the tub, eye bolts 7 are located and made with cross bars 8 against the tub wall opposite the thumb screws and coöperating with the thumb screws to form effective clamps to secure the frame to the tub wall.

9 represents my improved brackets slotted to receive the threaded portions of eye bolts 7 and curved in cross section on their inner face to seat on the rod and notched to receive the eye portions of eye bolts 7. The outer faces of the brackets have a general curvature from end to end. In other words, lugs 10 are provided at the ends of the brackets and these lugs 10 have curved or inclined edges against which the parallel rods of trackway 11 are securely clamped by nuts 12 on the eye bolts 7. These nuts 12 are made semi-spherical on their inner faces where they engage the trackway, and owing to the curvature of the brackets 9, the trackway can be clamped at varying angles relative to the frame and tub wall to secure the best results, and it will be seen that the nuts 12 will firmly clamp the trackway at any angle and that the nuts serve not only to clamp the trackway to the brackets but also clamp the eye bolts 7 and brackets 9 to the frame 2. The brackets 9 do not project out over the tub any appreciable distance to interfere with the clothes and movement of articles in the tub and the track can be perfectly adjusted both angularly and longitudinally and strictly conform to the pitch of the frame rods and incline of the tub wall.

A slide or carriage 13 is mounted on the trackway 11 and is adapted to travel from end to end thereof. The slide or carriage is provided over one member of the trackway with a rotatable mounting for the operating lever. In constructing this mounting, the

carriage is provided with a tubular post 14 inclosed by a rotary sleeve 15. This sleeve 15 is provided at its base with a flange 16 normally confined under fingers 17 on the carriage, and said flange 16 is made with diametrically opposite notches, to permit the ready removal of the sleeve, together with operating mechanism, which it carries, as hereinafter explained. The sleeve 15 is provided at diametrically opposite points, near its base, with pintles 18 on which an operating lever 19 is fulcrumed. This lever is of the bell-crank variety and is pivotally mounted on the pintles at the elbow formed by the juncture of its arms. The lever 19, comprises two parallel members secured together, and these members are at opposite sides of sleeve 15, the respective members being mounted on the respective pintles 18. The stem 20 of the pounder 21 is pivotally attached, at a point between its ends to the free end of lever 19 between the parallel members constituting the same, by a bolt 22, and said members of lever 19 are made with a series of alined openings 23 to receive the bolt 22 in any of them and thereby permit the pounder to be adjusted toward or away from the fulcrum of the lever.

The upper ends of stem 20 and sleeve 15 are provided at opposite sides with pintles 24 and parallel links 25 are perforated to receive the pintles 24 and connect the stem and sleeve. These links 25 have a series of perforations to receive the pintles 24 of stem 20 and permit adjustment of the latter and are connected by a slotted plate or buckle 26 between their ends. This plate or buckle 26 holds the links so they will be spaced further apart at their ends by their engagement with stem 20 and sleeve 15 and hence will exert spring pressure against the stem and sleeve to maintain themselves in position on the pintles, requiring no additional means to connect them and insuring a proper engagement at all times.

A handle 27 is secured to the upwardly projecting arm of the operating lever, said handle being inserted between the members of the lever and secured by transverse fastening devices.

One member of the trackway is provided with a series of notches or openings 28 to register with the tubular post 14 on the carriage 13, and a locking pin 29 is carried in the post to move by gravity into a notch or opening and lock the carriage against movement. The upper end of this locking pin 29, above post 14 and sleeve 15, is made with an enlarged head 30 which rides on the links 25, and it will be seen that when the lever is pulled back, beyond its normal working position, the links 25 will elevate the locking pin 29 from locked engagement with the trackway and permit the carriage to be moved from end to end of the track until the lever is again moved inward when the locking pin will be permitted to lower and automatically lock the carriage.

The general operation of the machine is like that of my patented structure above referred to and need not here be again set forth, save to say that my improvements are designed particularly for use on stationary tubs and the pounder can be operated in every part of the tub with equal facility.

Various slight changes might be made in the general form and arrangement of the parts described without departing from my invention and hence I would have it understood that I do not restrict myself to the precise details set forth but consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of my invention.

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

1. In a washing machine, the combination with a support, of a sliding carriage on the support, a tubular post on the sliding carriage, a sleeve on the post, a bell-crank lever fulcrumed on the sleeve, a pounder, a stem thereon connected between its ends to the lever, links connecting the upper ends of the stem and sleeve, and a buckle on the links compelling them to hold themselves in engagement with the stem and sleeve by their own spring tension.

2. The combination with a trackway having a series of notches or openings, of a sliding carriage, a tubular post thereon registering with the notches or openings, a sleeve on the post, a bell-crank-lever fulcrumed on the sleeve, a pounder, a stem on the pounder connected between its ends to the lever, links connecting the upper ends of the stem and sleeve and located on opposite sides thereof, a locking pin in the post to project into the notches or openings in the trackway and lock the carriage against sliding movement on the trackway, and an enlarged head on the pin riding on the links and elevated by the latter when the lever is drawn back, to release the pin from locked engagement with the trackway.

3. The combination with a rod frame to engage over the wall of a tub, of eye bolts on the inner rods, flat bars on the eye bolts against the inner faces of the tub, thumb screws on the frame to bear against the outside of the tub wall, brackets on the rods having openings to receive the eye bolts, a trackway against the brackets, and nuts on the eyebolts securing the trackway to the brackets and the latter to the rod frame.

4. The combination with a rod frame, of eye bolts mounted on the rod frame, brackets bearing against the rods of the rod frame and having openings through which the eye bolts pass said brackets having general con-

cave curvature from end to end, parallel rods forming a trackway located against the brackets and nuts on the eye bolts having spherical faces engaging the trackway rods and operating to clamp the latter at various angles to the brackets and the brackets to the rod frame.

5. The combination with a rod frame, of track supporting brackets thereon, a trackway, and means for simultaneously adjusting the brackets vertically on the rod frame and the trackway angularly on the brackets.

6. In a washing machine, the combination with a post, a lever pivoted thereto, a pounder and a stem thereon connected to the lever, of links connecting the stem and post and means on the links compelling them to engage the stem and post and retain themselves in position.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

CYRUS A. DODGE.

Witnesses:
ALBERT H. BATTEY,
ALVAH U. PATCHEN.