Jan. 16, 1934. J. H. ADAMS 1,943,503

FOLDING CLOTHES WRINGER

Filed Feb. 27, 1932 2 Sheets-Sheet 1

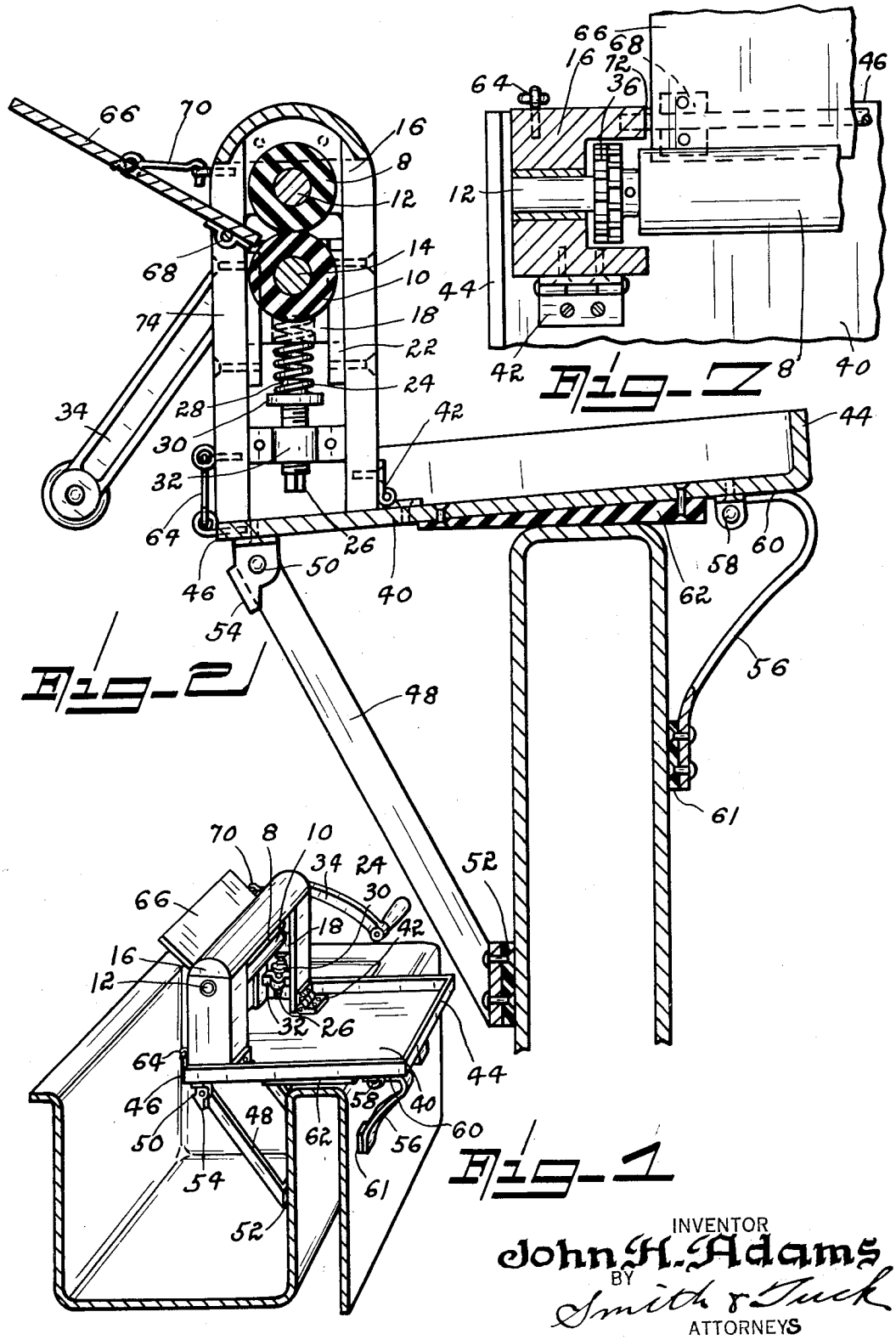



Fig. 2

Fig. 1

Fig. 7

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Fig. 3

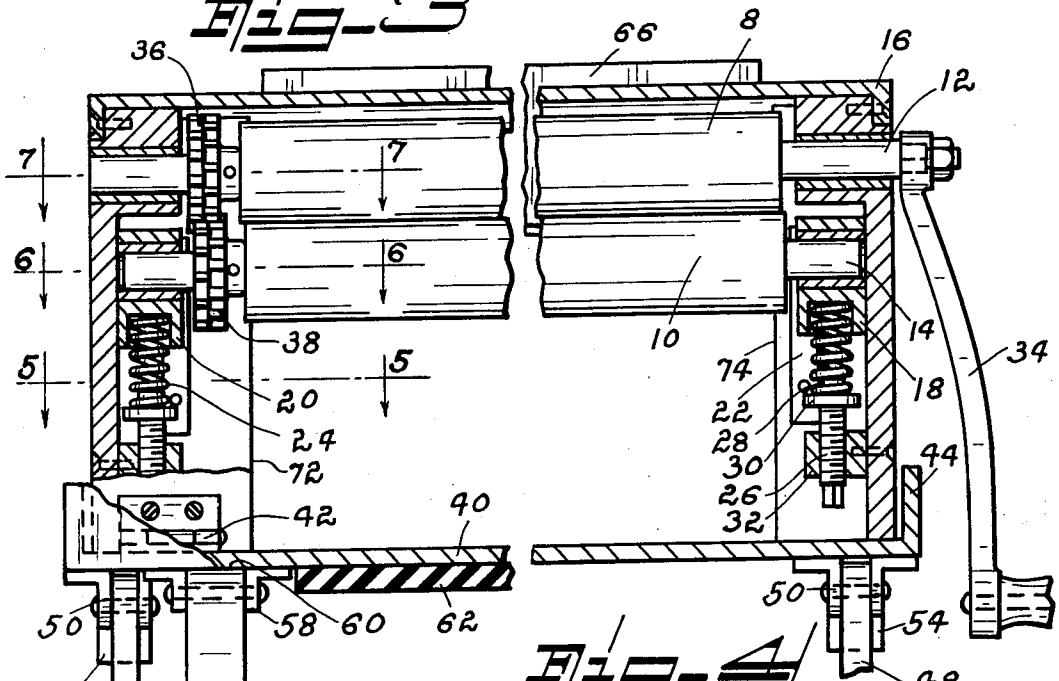



Fig. 4

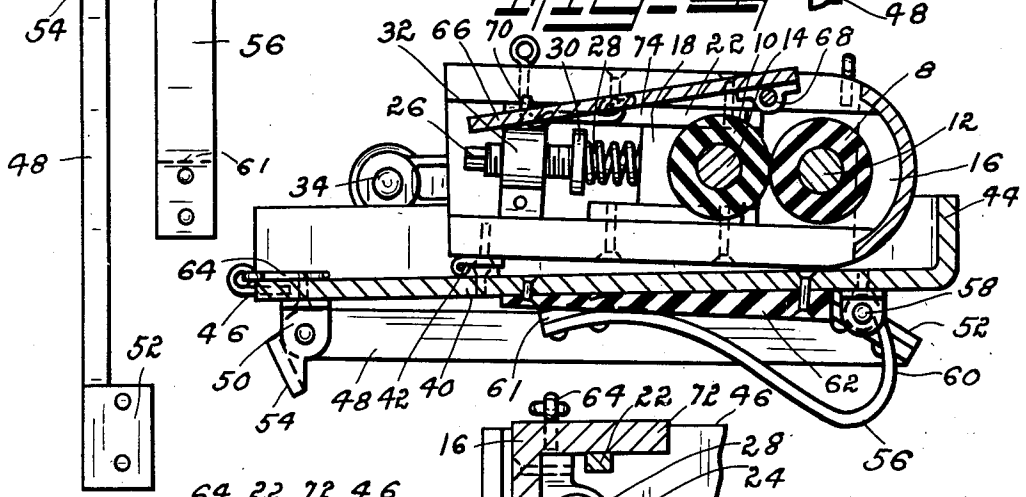



Fig. 5

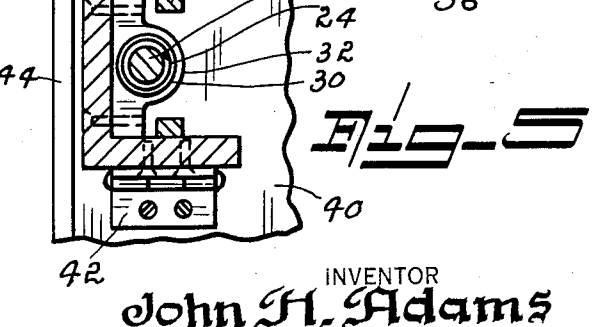
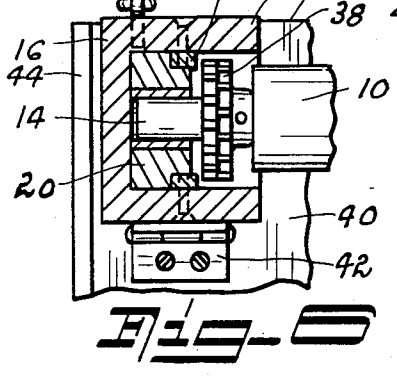



Fig. 6




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Patented Jan. 16, 1934 1,943,503

# UNITED STATES PATENT OFFICE

1,943,503

## FOLDING CLOTHES WRINGER

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Application February 27, 1932. Serial No. 595,624

3 Claims. (Cl. 68—32)

My present invention relates to the art of laundry equipment and more particularly to a folding clothes wringer. The modern apartment dwellers have for long been confronted with the perplexing problem of how to handle the small laundry items, particularly those pieces of linen, ladies' underwear, and the like which it is not normally desirable to send to the usual laundry, yet which are of such small amount that it is most desirable to do the laundry in the apartment.

The average apartment dwellers live on ground space where room is at a premium, consequently there is not sufficient space for the usual laundry tray and equipment. It is for such people as this that I have provided my folding clothes wringer.

I have arranged my wringer in its various parts, so as to make it readily adaptable for use upon a kitchen sink or upon a bathtub of the more modern type. Therefore,

The principal object of my invention is the provision of a clothes wringer, which by virtue of its construction can be folded up and stored in the minimum space.

A further object is the provision of a clothes wringer which, due to its unusual construction, can be quite practically used, attached to the average kitchen sink or bath tub.

Other and more specific objects will be apparent from the following description taken in connection with the accompanying drawings, wherein

Figure 1 is a perspective view showing a specific bathtub construction in cross sectional elevation, and showing my wringer attached thereto.

Figure 2 is a transverse sectional view on an enlarged scale through my clothes wringer.

Figure 3 is a longitudinal sectional view in elevation showing the various essential parts of my wringer.

Figure 4 shows a transverse sectional view of my wringer as it appears as folded away for storage.

Figures 5, 6 and 7 are fragmentary sectional views taken along the appropriate lines of Figure 3.

Referring to the drawings, throughout which like reference characters indicate like parts, 8 and 10 designates respectively, the upper and lower roll of my wringer. These I prefer to form after the manner of the conventional wringer roll, in which gum rubber is normally vulcanized to a central core or metal shaft as 12 and 14, respectively.

The upper roller 8 I prefer to mount in bearings of conventional construction which are secured within the wringer frame 16. The bearings for shaft 14 which supports the lower roller, I prefer to mount in the vertically movable bearings 18 and 20. These I normally provide with guiding means within the frame as guide 22 formed as part of or secured to frame 16 and arranged to permit vertical movement of the bearing, yet restrict them against side movement. I then provide backing spring as 24, which are so disposed that when garments of unusual thickness pass between the rollers the spring may be compressed and thus allow the garment to pass through.

It has, however, been found desirable to have the spring tension on the rollers adjustable. This has been accomplished by providing each of the springs 24 with an adjustable support 26, which is provided at its upper end with a spring guide 28, spring seat 30 and is adapted to be threaded into an outstanding lug 32, which may be formed as part of the frame work 16, but probably more preferably, formed as a separate block and secured thereto by suitable means. This gives an opportunity to make this lug of a more durable metal than the frame as I have found it most desirable to make the frame light in weight, consequently have adopted aluminum as probably the most satisfactory metal, yet the lug 32 should be of a firmer metal that will not be damaged by the actions of the threads of bolts 26.

Attention is invited at this time to the securing of the driving handle 34 to the upper of the two rollers. This permits the roller to be turned with the ordinary rotary movement common to wringers in which the greatest force can be applied to the wringer by pushing it away from the user, at the top. In my present construction this will so turn the two rollers that garments will be fed from the tub side of the wringer toward the operator. This action is just the opposite from that normally found in the average wringer, which has its operating handle secured to the lowermost roller and this when turned in the usual direction feeds, the material to be wrung, from the space outwardly disposed as in Figure 2 to the inner space which in this case would deposit the garment in the tub or away from the operator.

In order to assure an even driving of the two rolls 8 and 10, I provide my wringer with the usual stepped gears 36 and 38, which are secured

respectively to shafts 12 and 14. These gears following the practice of wringer construction are provided with teeth of unusual depth so as to permit their proper driving even though the rollers be spaced somewhat far apart.

I prefer to hingedly secure my wringer frame 16 to a supporting platform as 40 and to this end have provided a plurality of hinges as at 42. Platform 40, I normally prefer to form of metal having an upstanding edge as 44 extending around three sides of the platform, to the end that no water can be lost and drained onto the floor. It is very desirable, further to provide platform 40 with means which will hold it onto the outer wall of a bathtub or a kitchen sink in a manner so that the innermost edge as 46 will be somewhat lower than the outer edge. This is to facilitate drainage into the tub.

It has been found desirable to provide platform 40 with a rather secure method of attachment to the wall of the bathtub. This I have provided by forming two supporting legs as 48 which are hingedly secured to platform 40 at 50. These legs, which should be tipped at 52 with some soft non-abrasive material such as rubber, for instance, must be so mounted as to come against a fixed stop such as illustrated at 54. This stop must be of sufficient size and so disposed as to positively limit the outward swing of arms 48. This is essential for a secure attachment of the wringer to the tub. It is then necessary to provide means on the opposite side of the tub wall so as to hold the wringer securely in place. This I have provided with the resilient arm members 56, which are hingedly secured as at 58 to platform 40 and have abutting portion as 60 which are adapted to engage platform 40 in a manner to form a secured backing for members 56. Members 56 should be tipped with suitable material, such as rubber, at 61 to prevent damage to the finish of the tub. Now, when the device is used it is customary to lower platform 40 until the rubber pad 62 contacts the upper edge of the tub wall, but with the floor of platform 40 sloping outwardly, then by swinging the wringer downwardly into the tub, pads 52 are pressed tightly against the inner wall of the tub and securely lock the device in place against the resiliency of members 56.

The wringer can then be hinged about the hinged axis 42 into an upright position where it may be secured as by the latch member 64. In order to facilitate wringing of clothes, and it must be understood that the wringing operation is what might be termed backwards from the ordinary use of a wringer, I have found it desirable to provide a feeding inclined surface as 66 which is hingedly secured at 68 to frame 16 and which is secured into position by the locking member 70. This feeding shelf 66 must of necessity, of course, extend across the full space of the wringer rolls, or at least across the open engagable portion of the rolls. It being understood that it is necessary to provide roller guide members at 72 and 74, which normally are a portion of the wringer frame, but which extend out over the rollers sufficiently to guide any garment and prevent their going off the end of the roll and getting into the grease of the bearing.

The foregoing description and the accompanying drawings are believed to clearly disclose a preferred embodiment of my invention but it will be understood that this disclosure is merely illustrative and that such changes in the invention may be made are fairly within the scope and spirit of the following claims:

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

1. The combination in a portable wringer with a platform forming a base and provided with flanged sides, of a pair of diagonal legs, brackets fixed at the underside of the base and pivot joints in said brackets for said legs, said brackets having stop walls for the legs, a pair of resilient arms mounted on the underside of the base, and pads mounted on adjoining faces of the free ends of the legs and arms, for the purpose described.

2. The combination in a portable wringer with a platform forming a base and provided with flanged sides, of a pair of diagonal legs, brackets fixed at the underside of the base and pivot joints in said brackets for said legs, said brackets having stop walls for said legs, a pair of resilient arms hinged to the underside of the base, said arms having bow-ends for supporting the base, and pads mounted on the adjoining faces of the free ends of said legs and arms.

3. In a clothes wringer, the combination with a frame comprising a pair of spaced housings for the ends of the rolls, said housings having complementary edges overlapping the ends of the rolls to form garment guides, of a pivoted, inclined shelf supported in the frame and detachable fastenings for said shelf, a base member, and hinge connections between said base member and said frame.

JOHN H. ADAMS.