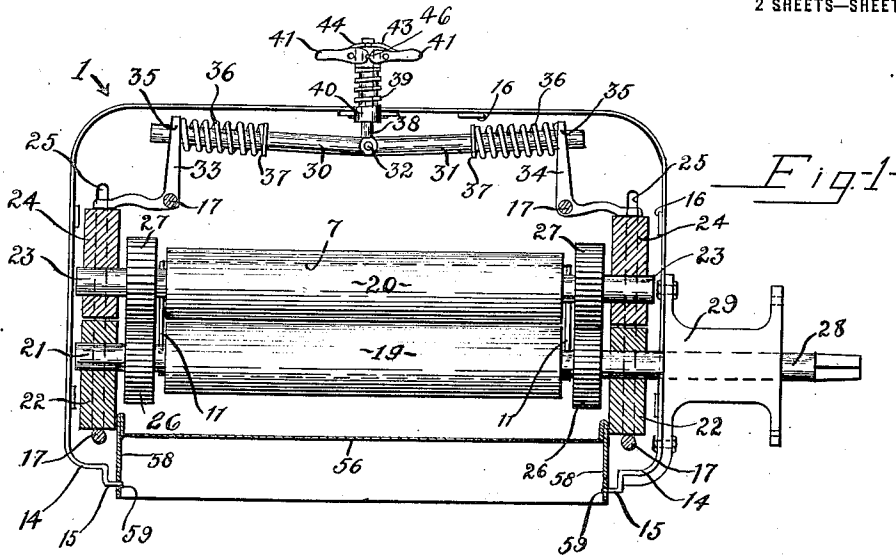
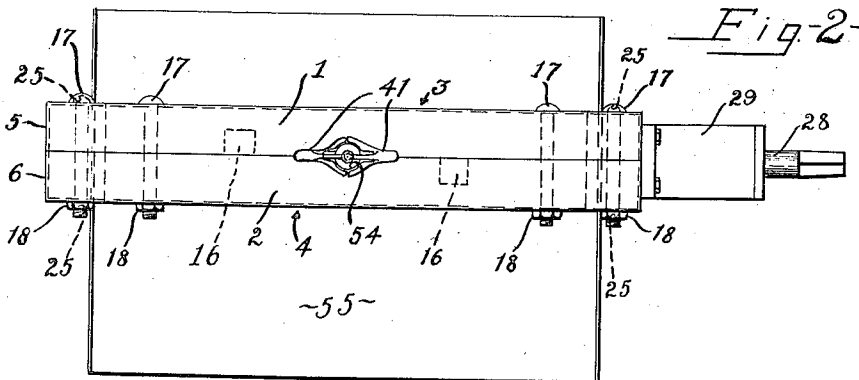
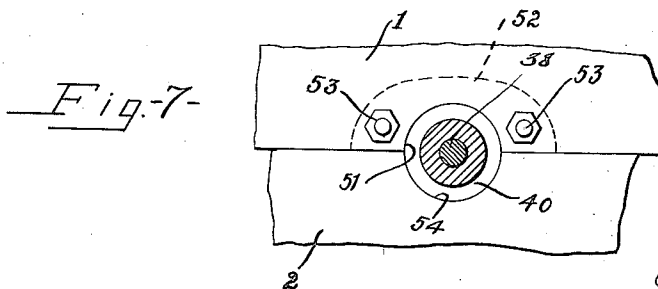


R. L. KINCAID.
CLOTHES WRINGER.
APPLICATION FILED MAR. 3, 1920.

1,416,213.

Patented May 16, 1922.

2 SHEETS—SHEET 1.



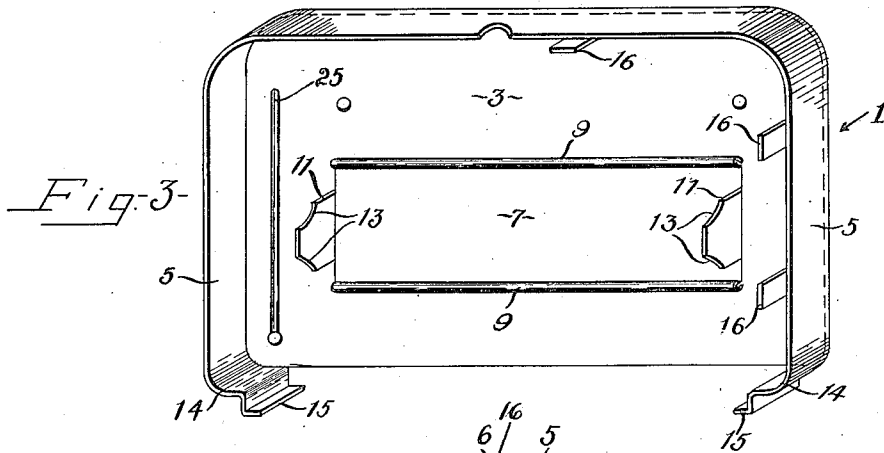
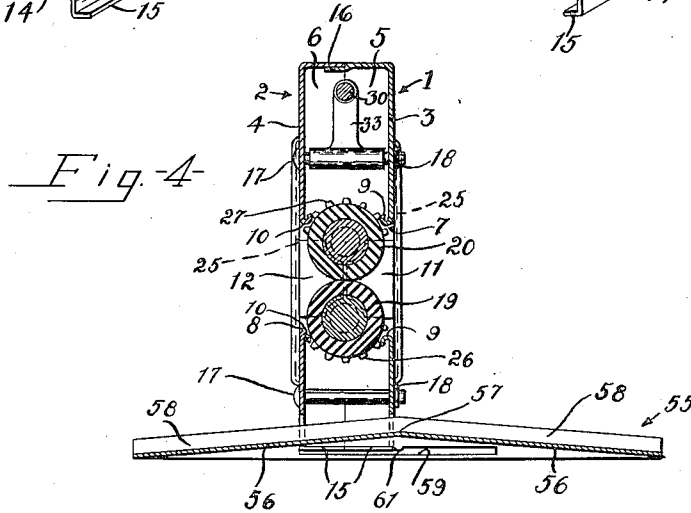
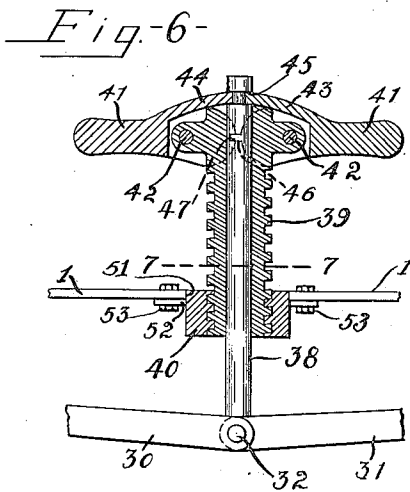
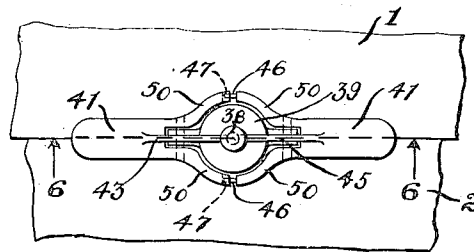
INVENTOR.
R. L. Kincaid
BY *Parsons & Rodell*
ATTORNEYS.

R. L. KINCAID.
CLOTHES WRINGER.
APPLICATION FILED MAR. 3, 1920.

1,416,213.

Patented May 16, 1922.

2 SHEETS—SHEET 2.



INVENTOR.

Robert L. Kincaid
BY *Lawson & Bodell*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

ROBERT LELAND KINCAID, OF SYRACUSE, NEW YORK.

CLOTHES WRINGER.

1,416,213.

Specification of Letters Patent. Patented May 16, 1922.

Application filed March 3, 1920. Serial No. 362,910.

To all whom it may concern:

Be it known that I, ROBERT LELAND KINCAID, a citizen of the United States, and a resident of Syracuse, in the county of Onondaga and State of New York, have invented a certain new and useful Clothes Wringer, of which the following is a specification.

This invention relates to wringers and has for its object, a wringer construction which is particularly simple and economical in construction, and highly efficient and durable in use; and the invention consists in the combinations and constructions 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 vertical sectional view of a wringer embodying my invention.

Figure 2 is a plan view thereof.

Figure 3 is a detail view of one of the sections of the support or casing of the wringer.

Figure 4 is a vertical cross sectional view.

Figure 5 is a fragmentary plan view of the support or casing of the wringer showing the operating means for compressing the rolls.

Figure 6 is a sectional view on line 6—6, Fig. 5.

Figure 7 is a fragmentary detail view similar to Fig. 6 taken on lines 7—7, Fig. 6.

This wringer comprises generally, a support or casing for the mechanism including front and rear sections, one of which constitutes a base section or box and the other a cover, and rolls and roll mechanism mounted between the sections. The sections are preferably duplicates struck up from sheet metal blanks and separable along a plane extending midway between the front and rear sides of the wringer and are provided with interfitting means on their opposing edges.

1 and 2 are respectively, the front and rear sections, each section being in the form of a shallow pan and including a bottom 3 or 4 and side walls 5 or 6, the case being open at its lower side.

The bottoms 3, 4 that is, the front and rear side walls of the wringer support are formed with alined slots 7, 8 and the margins of the walls along the upper and lower sides of these openings 7 or 8 are rolled

into the form of beads as at 9, 10, and the end walls of these slots are provided with inturned flaps 11, 12 having their edges at 13 curved to conform to the curvature of the rolls. These flaps 11 or 12 cover the gears at the ends of the rolls and act as shields to prevent the clothes passing between the rolls from getting caught in the gears. The vertical end walls of the wringer casing are curved inwardly at 14 and provided with inturned lips at 15 for supporting a water board to be presently described.

The interfitting means on the opposing edges of the sections may be of any suitable form, size and construction, and as here illustrated include tongues 16 arranged out of the plane of the sides on which they are provided in order to enter under the corresponding side or wall of the other section. As these sections are duplicates, and hence when brought together are reversely arranged with respect to each other, the tongues 16 are provided only on half of each section and hence when the two sections are brought together the tongues on each section come on opposite sides of the vertical center of the casing or box.

The sections are secured together in any suitable manner as by fastening members as bolts 17 extending transversely through the sections and nuts 18 threading on the bolts.

19 and 20 are respectively, lower and upper rolls located in the sections 1, 2 so that the opposing portions of their peripheries are opposite the slots 7 and 8 in the sections 1, 2.

The axle 21 of the lower roll 19 is arranged in suitable bearing blocks 22 which rest on the lower fastening members or bolts 17. The axles 23 of the upper roll 20 are journaled in similar blocks 24, these blocks being guided in grooves 25 formed in the front and rear sides of the sections 1, 2. The rolls are connected together by inter-meshing gears 26, 27 in the usual manner. The axle 21 of the lower roll is provided with an extension 28 journaled in a bearing 29 which is bolted or otherwise secured to the outer side of the base section 1.

Pressure is exerted on the upper roll or the bearings 24 thereof by any suitable mechanism which is preferably carried by the base section 1, this mechanism consisting of a pair of links 30, 31 pivoted together at 32 to form a toggle, levers as bell crank levers 33, 34 pivoted in the base sec-

tion and preferably on two of the bolts 17, like arms of these levers pressing downwardly on the upper bearings 24 and the links 30, 31 sliding through openings in the other arms 35 of these levers 33 and 34, springs 36 interposed between the shoulders 37 on the links 30, 31 and the levers 33 and 34 and means for moving the links 30, 31 toward and from the straight or dead center line of the toggle. Said means as here shown comprises a rod 38 pivoted to the joint 32 of the links 30, 31, a screw 39 threading in a block or bracket 40 secured to the top wall of the base section 1 and means for operating the screw 39 and locking the rod thereto to move endwise therewith and also locking the rod from endwise movement. This means may be of any suitable form, size and construction, and as here shown, includes a pair of handle levers 41 pivoted at 42 to lugs on the upper end of the screw and forming in effect wings by means of which the screw may be turned. These levers 41 are formed with projections or teeth 43, 44 for entering a groove 45 near the top of the rod above the end of the screw 39. When turning the screw by means of these levers 41 when the parts are in the position shown in Fig. 5, the rod 38 moves endwisely therewith and acts as a unit with the screw with the exception that it does not turn. However, when the levers 41 are moved downwardly on their pivots 42 the projections 43, 44 are withdrawn or unclutched from the rod 38 thus permitting the springs 36 to break or fold the toggle, and release the tension thereof on the bearings 24 of the upper roll 20. To again straighten the toggle, the screw is turned until the projections 43, 44 can again interlock in the groove 45 and the screw 39 unscrewed to pull the links 30, 31 toward a straight line. This movement is discontinued when the links are in the position shown in Fig. 1, that is, before they quite reach a straight line. The handle levers 41 are bifurcated and the arms thereof extend around the upper end of the screw and are provided with the interacting tongues 46 and grooves 47 on the opposing arc-shaped ends 50 of said arms, these tongues and grooves holding the handle levers in juxtaposition.

The block 40 as seen in Fig. 7 is located in an arc-shaped cutout 51 in the edge of the base section 1 and is provided with a base plate 52 which may be secured to the upper wall of the base section in any suitable manner as by rivets or bolts and nuts 53. The rivets or bolts may be omitted. The lower section 2 is formed with a complementary cutout 54 which receives half of the block 40.

The water board, that is, the board which receives the water wrung from the clothes

and also on which the clothes rest as they are passing from the wringer, is formed of sheet metal blank and is supported by the flanges or lips 15 at the lower edges of the sections 1, 2.

55 designates the water board which is formed double and bent up from sheet metal to form top plates 56 inclining in opposite directions from the center line of the water board thus forming an apex 57 and side flanges 58 which are formed with slots 59 for receiving the flanges 15. As seen in Fig. 1, the water board is also folded to have upwardly extending vertical flanges which together with the top walls 56, form wide channels for the water. The slots 59 are of greater length than the length of the flanges or lips 15 to permit shifting of the water board endwise so that the apex 57 may be located on one side or the other of the wringer, and the water board shifted to cause the water to drain to one side or the other of the wringer in accordance with the position of the wringer with respect to the receptacles from and to which the clothes are being passed.

In order to hold the water board in its adjusted position projections 61 are provided midway between the ends of the slots 59 which projections abut against one end or the other of the flanges 15. To shift the water board it is raised slightly so that the projections 61 can ride on the upper faces of the flanges 15 while the board is being shifted in one direction or the other.

This wringer is particularly adapted to be used in connection with washing machines and is carried by a suitable bracket secured to the base member 1 but as the various ways of carrying wringers and their operating and reversing mechanism on tubs and the washing machines, is well known, further description is thought to be unnecessary.

This wringer construction is particularly advantageous in that the frame or sections 1, 2 can be cheaply formed up of sheet metal and the rollers and mechanism readily assembled therein by laying the base section 1 with its open side up placing the bearing blocks and rolls and compressing mechanism therein, placing and securing the cover section in position. Also parts are readily accessible when it is necessary to repair the wringer.

Furthermore, owing to the sheet metal frame, the rolls are rigidly supported and all possibility of sagging eliminated without the use of a bracket such as is now used on wringers having wood and iron frames.

What I claim is:

1. A wringer construction comprising opposing front and rear, substantially rectangular duplicate box-like sections fitted together and forming a casing, rolls, roll mechanism arranged within the said sections

for applying pressure to the rolls, bearings for the rolls, and transverse fastening devices passing through and securing the sections together and supporting the bearings and the roll mechanism.

2. A wringer construction comprising opposing front and rear duplicate, substantially rectangular box-like sections fitted together and provided at their meeting edges with lapping portions, bearing blocks mounted between the front and rear walls of the sections and slidable along the same, rolls having axles journaled in the bearing blocks, roll mechanism carried by the sections for applying pressure to the rolls, and transverse fastening devices passing through the sections and securing the same together and constituting supports for the bearings and also for the roll mechanism.

3. A wringer construction comprising a frame including a casing comprising a base section and a cover, the cover having an opening therein and the base section also having an opening aligned with the opening of the cover section and the base and cover sections having interfitting parts on their opposing edges, fastening members extending transversely through the base and cover sections, rolls supported in the sections, bearings for the rolls mounted between the sections, the bearings for the lower roll resting on some of said fastening members, and compression means coacting with the bearings for the upper roll and including parts mounted on other of said fastening members, substantially as and for the purpose specified.

4. A wringer construction composed of front and rear, substantially rectangular du-

plicate box-like sections fitted together and forming a casing, rolls, roll mechanism arranged within the sections for applying pressure to the rolls, bearings for the said rolls, and transverse fastening devices connecting the sections and securing the same together and supporting the roll mechanism.

5. A water board for wringers formed of a sheet having oppositely inclined walls which meet at an apex substantially centrally of the water board and depending end flanges formed with lengthwise slots in combination with a wringer including a frame having inturned lips for entering the slots, substantially as and for the purpose specified.

6. In a wringer, the combination of a casing, a pair of rolls, bearings for the rolls, one roll being movable toward and from the other, means for compressing said roll toward and from the other comprising a pair of horizontally extending links pivoted together at their opposing ends, a rod pivoted to the joint of said links, a screw threading in the casing of the wringer and encircling the rod, the rod being slidable endwise in the screw, and means for turning the screw and locking the rod from endwise movement relatively to the screw, said means being operable to unlock the rod from the screw, substantially as and for the purpose set forth.

In testimony whereof, I have hereunto signed my name, at Syracuse, in the county of Onondaga and State of New York, this 17th day of February, 1920.

ROBERT LELAND KINCAID.