J. K. DUGDALE.

WRINGER.

No. 173,776. Patented Feb. 22, 1876.

Fig. 1.

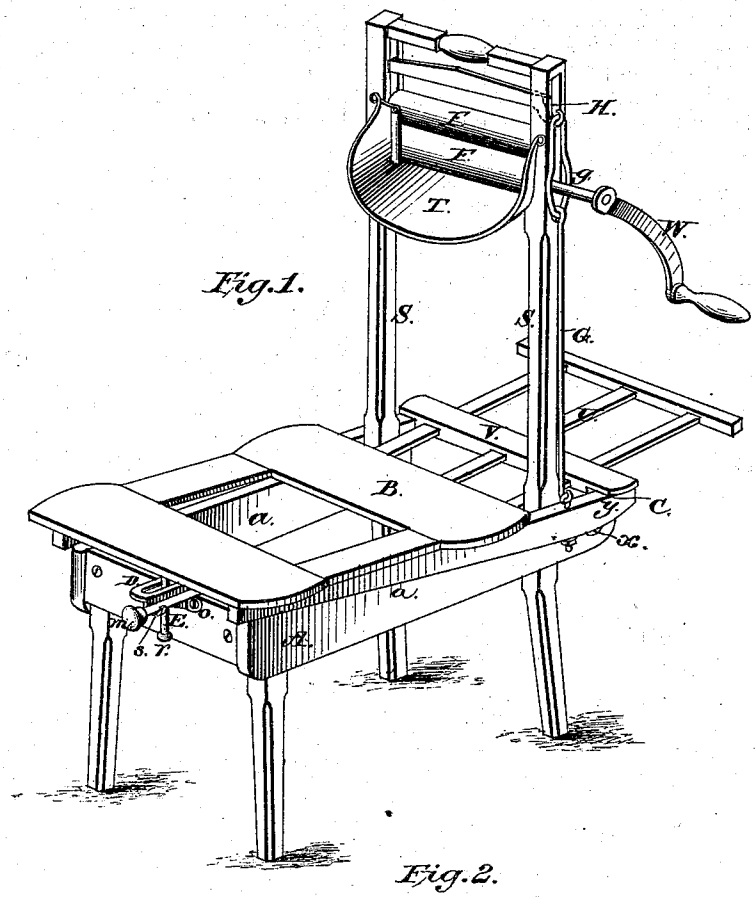


Fig. 2.

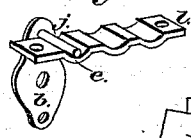


Fig. 3.

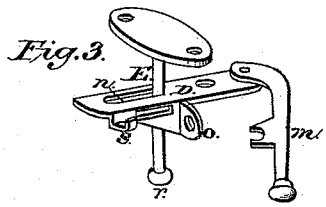
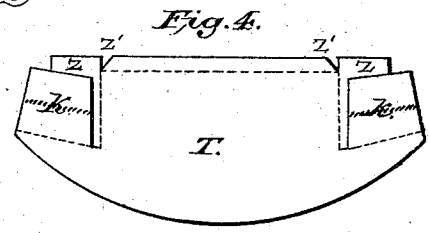


Fig. 4.



Attest:

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UNITED STATES PATENT OFFICE.

JAMES K. DUGDALE, OF WHITE WATER, INDIANA.

IMPROVEMENT IN WRINGERS.

Specification forming part of Letters Patent No. **173,776**, dated February 22, 1876; application filed September 3, 1875.

To all whom it may concern:

Be it known that I, JAMES K. DUGDALE, of White Water, in the county of Wayne and State of Indiana, have invented a new and useful Improvement in Wringing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification.

Similar letters of reference indicate corresponding parts.

Figure 1 is a perspective view of my improved clothes-wringer. Figs. 2, 3, and 4 are parts of the same on a larger scale.

A is the frame of an ordinary bench, with its side pieces *a a* extended beyond the standards S S. These standards serve both as rear legs to the bench and for supporting the rolls F F.

A movable platform, B, rests upon bench A, upon which platform the wash-tub or other suds receptacle is placed; this platform is hinged to bench A at C, by detachable hinges; each hinge is composed of a plate, pin, and socket; the plate and pin are secured to the side pieces of frame A at *x*, and the sockets are secured to the side pieces of platform B at *y*, or their positions may be reversed. In place of a single socket allowing of but one ratio of leverage, I have a series of sockets, so that the pin of the hinge may be detached from one set and placed in others, either at a greater or less distance from the point where the rods G G are connected with platform B, giving more or less leverage as desired. This hinge is shown by Fig. 2. *j* is the pin; *b*, the plate; *e*, the socket.

A guide-pin, E, is attached to the front end of platform B, which pin slides in an eye or orifice attached to bench-frame A, or the pin may be attached to the bench and the eye to the platform as most convenient. This orifice is elongated for the purpose of allowing the pin to slip backward or forward a sufficient distance to accommodate the movement of the hinges above described, but allowing no lateral play; this arrangement holds the platform steady and prevents the hinges from getting misplaced. The pin is locked to its place, corresponding to the position of the hinges, by prongs attached to a spring-rod; this device is shown by Fig. 3. Plate D is provided with wings or braces, *o o*, for the purpose of fastening it firmly to the frame A. *n* is the elongated orifice; *m*, the pronged spring-rod which fastens on a catch at *s* and locks the pin E to its place, or the prongs may be made to slide back and forth and similarly locked. The pin is provided with a knob or projection, *r*, at its lower end, which knob prevents its slipping out of the eye, thereby preventing any accidental displacement of the platform B.

The rollers F F are supported at a proper height above the bench by standards, S S; slots are made in the upper end of said standards in which the journals of the rollers work.

H is a beam reaching from standard to standard and through the slots, the ends of which are connected with rods, G G; the lower ends of these rods are attached to the sides of the platform at such a distance from the hinges as to give the desired leverage.

Thus it will be seen that a vessel of water or other weight placed upon platform B draws down the upper roller upon the lower one by means of rods G G, connecting its bearings with the platform B, in proportion to the leverage and weight. These rods are linked at the lower end near the platform, so as to allow of their vibrating when the leverage is altered. The ends of said rods pass through the side pieces of platform B, and are fastened in place by nuts screwed on the rods, which allow the rods to be shortened to make up for wear of the bearings. The crank W is attached to the lower roller, a link, *g*, wide enough to allow the projecting shaft of the lower roller to pass through, is connected with rods G and the bearings of the upper roller.

T is an inclined apron or water-trough secured to standards G G below the rolls F F, which trough throws the water back into the tub or suds-box; this trough is made of a curved shape so that the middle is the lowest part, causing the water to flow toward the middle, thereby making it less liable to slop. This trough is made of a single piece of sheet-metal, (edges wired,) cut as shown by Fig. 4. The black lines are cut in the metal at such

angles as will give the trough the proper slope when bent to shape; the dotted lines show the bent parts. The wings *k* are formed into hollow tubes, which act as fenders for preventing the clothes from running to the ends of the rolls; this part, after being tubed, is turned back, serving to give additional strength where the trough is attached to the standards. The wings in rear of *k k*, designated by letters Z Z, and also the rear edge of plate T, Fig. 4, are bent up, which closes the notches Z′ forming said rear wings; the edges being wired, this part is easily fastened to the rear of said standards S S. U is a sliding rack or frame upon which a basket or other article is placed to receive the goods as they are passed through the rolls; this rack slides through cap piece V, and under platform, B, and is closed or extended at pleasure.

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

1. In combination with platform B, provided with guide-pin E, the device D, as and for the purpose specified.

2. The detachable hinges, composed of pin *j*, plate *b*, and sockets or indentations *c*, in combination with bench A and platform B, provided with guide-pin E and elongated eye or slot *n*, as described and set forth.

3. The combination of outer form of plate T with inside cuts, forming wings *k k* and Z Z and described bend, with standards S S, provided with rolls F F, substantially as set forth.

4. The combination of the adjustable lever platform or frame B, provided with detachable hinges at C, guide-pin E, and eye or slot, *n*, draw-rods G G, and beam H, with bench-frame A, provided with standards S S, wringer-rollers F F, curved water-trough T, and sliding-rack U, as set forth.

JAMES K. DUGDALE.

Witnesses:

BENJ. H. DUGDALE.

BENJ. W. ADDLEMAN.