W. A. SHARPE.

Clothes-Wringers.

No. 152,425. Patented June 23, 1874.

Fig 1.

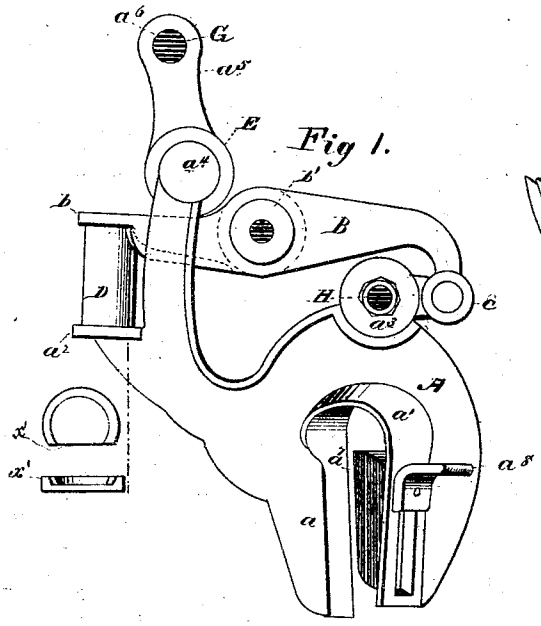


Fig 2.

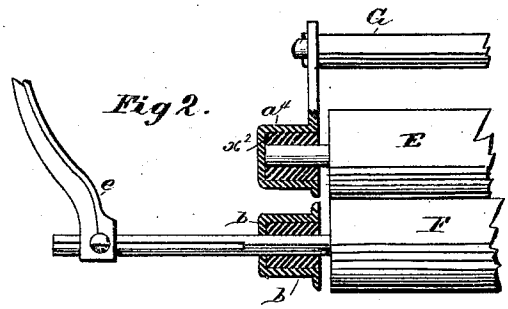


Fig 3.

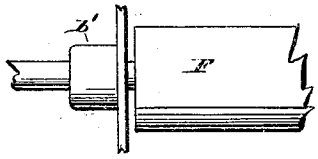


Fig 4.A

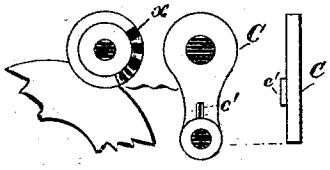


Fig 5.

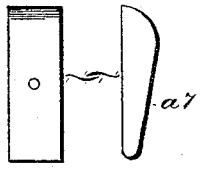


Fig 4.B

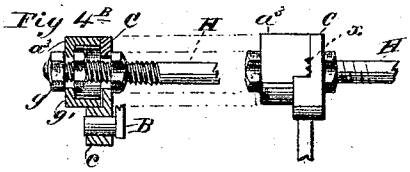


Fig 6

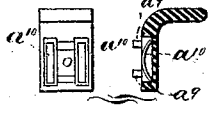


Fig 7.

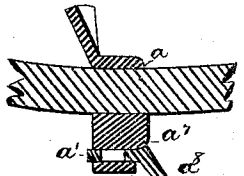


Fig 8.

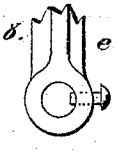


Fig 10.

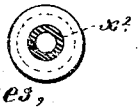


Fig 9

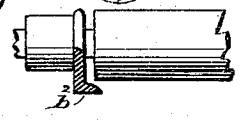
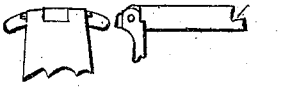


Fig 11.



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Attys.

UNITED STATES PATENT OFFICE.

WILLIAM A. SHARPE, OF SYRACUSE, NEW YORK.

IMPROVEMENT IN CLOTHES-WRINGERS.

Specification forming part of Letters Patent No. **152,425**, dated June 23, 1874; application filed February 23, 1874.

To all whom it may concern:

Be it known that I, WILLIAM A. SHARPE, of Syracuse, in the county of Onondaga and State of New York, have invented a new and useful Improvement in Clothes-Wringers; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings and to the letters of reference marked thereon.

This invention consists mainly in the means employed to adjust a lever for the purpose of regulating the pressure of the movable roller, and also in the combination of certain parts with others to form an improved wringer.

In the drawings, Figure 1 represents an elevation of one side of the machine; Fig. 2, a front elevation of one end of the rollers with their bearings in section; Fig. 3, a front elevation of the movable roller; Fig. 4, A and B, different views of the fulcrum-ear, and that part of the casting to which it is attached; Figs. 5, 6, and 7, various views of the clamping devices; Fig. 8, a partial view of the crank; Fig. 9, an elevation, partially in section, showing the lip or flange for preventing the clothing from being caught between the roller and the sides of the machine; Fig. 10, a front view of one of the bearings of the roller-shafts; and Fig. 11, views of the tie which unites the upper part of the machine.

To enable others skilled in the art to make and use my invention, I will now proceed to describe fully its construction and manner of operation.

A represents a casting, provided below with the jaws a a^1, set at an angle to the main portion to correspond with the circle of a tub, as shown, and above with the horizontal cup or flanged supporting-disk a^2, cylindrical recessed projections a^3 a^4, and extension-arm a^5 with orifice a^6, as shown. To one of the jaws is fixed the clamping devices, as follows: a^7 represents a wedge-shaped block, the inclined side of which rests against the correspondingly-inclined face of the jaw a^1, its straight side being parallel with the face of the jaw a, as shown. a^8 represents a suitable handle, rigidly connected to the block a^7 by means of a rivet extending through the elongated slot in the jaw a^1. a^9 a^9 represent legs projecting from the handle a^8, for the purpose of preventing it from being riveted to the jaw a^1. a^{10} a^{10} represent springs resting in proper recesses in the handle, as shown, which are adapted to prevent the handle and the block attached thereto from being moved by their own weight. By moving the handle vertically upon the fixed jaw a^1 the distance between the parallel faces of the block and jaw a is regulated at will. The cylindrical recessed projection a^3 is provided with a central opening in its closed end; and it has, also, its inner edge upon one side provided with serrations x, as shown. The horizontal cup a^2 has its flange cut away upon one side, as shown at x^1, Fig. 1. B represents a lever of the second class pivoted at one end to the fulcrum-ear c, and provided at the other with a horizontal inverted cup or flanged disk, b, as shown. It is provided also with a cylindrical recessed projection, b^1, and near its moving end with a rib or flange, b^2, shown in dotted lines, Fig. 1, and in section, Fig. 9. C represents a disk held by means of a central opening upon the girt or securing-rod H, and provided upon one side with a projecting ear, c, and also with a projecting tooth, c', adapted to rest in one of the serrations or notches of the recessed projection a^3 of the part A. D represents a cylindrical block of rubber, the ends of which rest in the horizontal cups of the part A and lever B, as shown. This block may be placed in position after the parts of the wringer are united together in consequence of the opening left by the cut-away flange at x^1, Fig. 1. E represents the fixed roller of the wringer, the journal of which rests in the recess of the cylindrical projections a^4 of the part A, a cylindrical ring of wood, x^2, being interposed between the journal-shaft and the casting, as shown. F represents the roller attached to the moving lever-arm. It is held in the recess of the projection b in a similar manner to the roller E above described, its shaft being extended at one end and grooved, as shown, to receive the horizontally-adjustable crank e. G represents the upper securing-rod for uniting the two sides of the wringer together. H represents the lower securing-rod, which passes through the orifice of the projection a^3 of the part A, and also the orifice of the disk C. Its extreme end is threaded for some little dis-

tance, and it is provided with nuts g g' adapted to regulate the position of the disk C upon the rod.

Only one side of the machine has been described. It will be understood, of course, that the other side of the same is the counterpart of this.

The operation of the machine will now be described.

The wringer is clamped to the tub by means of the movable block a^7, the same being moved downward after the jaws have been placed in position upon the edge of the tub by the handle a^8 moving in the slot of jaw a^1. The downward movement of the inclined face of the block upon the inclined face of the jaw a^1 causes its opposite face to approach, to a greater or less extent, according to the movement of the handle, the face of the jaw a, and thus securely clamp the inclosed edge of the tub. The relative arrangement of the clamping-jaws to the main portion A and lever B is such, it will be observed, that while the clamping-jaws press squarely at each end upon the curved line of the tub the rollers lie upon a straight line drawn between the two parts, and hence overhang the tub at a little distance from its edge. Power is communicated to the wringer by means of the handle in the usual manner.

The handle, it will be observed, is horizontally adjustable upon the main shaft by means of the set-screw resting in the horizontal groove, as shown, by which means the handle may be moved nearer to a small tub or farther from a large one, to adapt it for convenient use.

The operation of wringing is performed in much the usual manner, the clothing being passed between the movable and the stationary roller to express the water, the movable roller upon the lever-arm B yielding, through the action of the spring D, to permit the various thicknesses to pass through without injury to the machine.

To adjust the distance between the rollers, and thus increase or diminish the pressure of the spring D, the fulcrum end of the lever is raised or lowered at will by adjusting the disk C, having the fulcrum-ear c. The disk is adjusted by loosening its securing-nut and moving it laterally upon the rod H until its tooth c' is disconnected from the serration or notch in which it rests; then, by turning it upon the rod so that its tooth is enabled to engage with a higher or lower serration of the fixed projection a^3 of the part A, as may be desired, the fulcrum end of the lever is correspondingly raised or lowered, and the distance between the rollers regulated, and the pressure of the spring correspondingly increased or diminished.

It will be observed, also, that the rollers are not relatively held in a vertical plane, but that they lie in an inclined plane. In consequence of this arrangement, the clothing, in passing through the machine, is permitted to hang vertically for the purpose of causing the water to run down without obstruction; but after passing between the rollers it is conducted forward over the edge of the tub. The journals of the shafts are inclosed in the recess described, and thus fully protected, and their bearings are composed of wood, which may be first soaked in oil. By means of the projecting flange on part B, the clothing, in passing through the machine, is guided away from the end of the roller, for the purpose of preventing it from being caught between it and the sides of the machine.

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

1. The combination of the lever-arm B, the adjustable fulcrum c, and the spring D, the fulcrum and spring being located at the ends of the lever, as described.

2. The handle a^8, having projecting legs and springs, with the block a^7 and jaw a^1, as described.

3. The disk C, provided with the ear c and tooth c^1, in combination with the projection a^3, having the serration, as described.

4. The wringer described, having the main part A with jaws set at an angle, lever B, adjustable disk C, securing-rods G H, constructed and arranged as described, for the purpose set forth.

This specification signed and witnessed this 7th day of February, 1874.

W. A. SHARPE.

Witnesses:
C. M. PALMER,
W. T. LINTNER.