(No Model.)

T. W. STONE.

CLOTHES WRINGER.

No. 432,252. Patented July 15, 1890.

Fig. 1

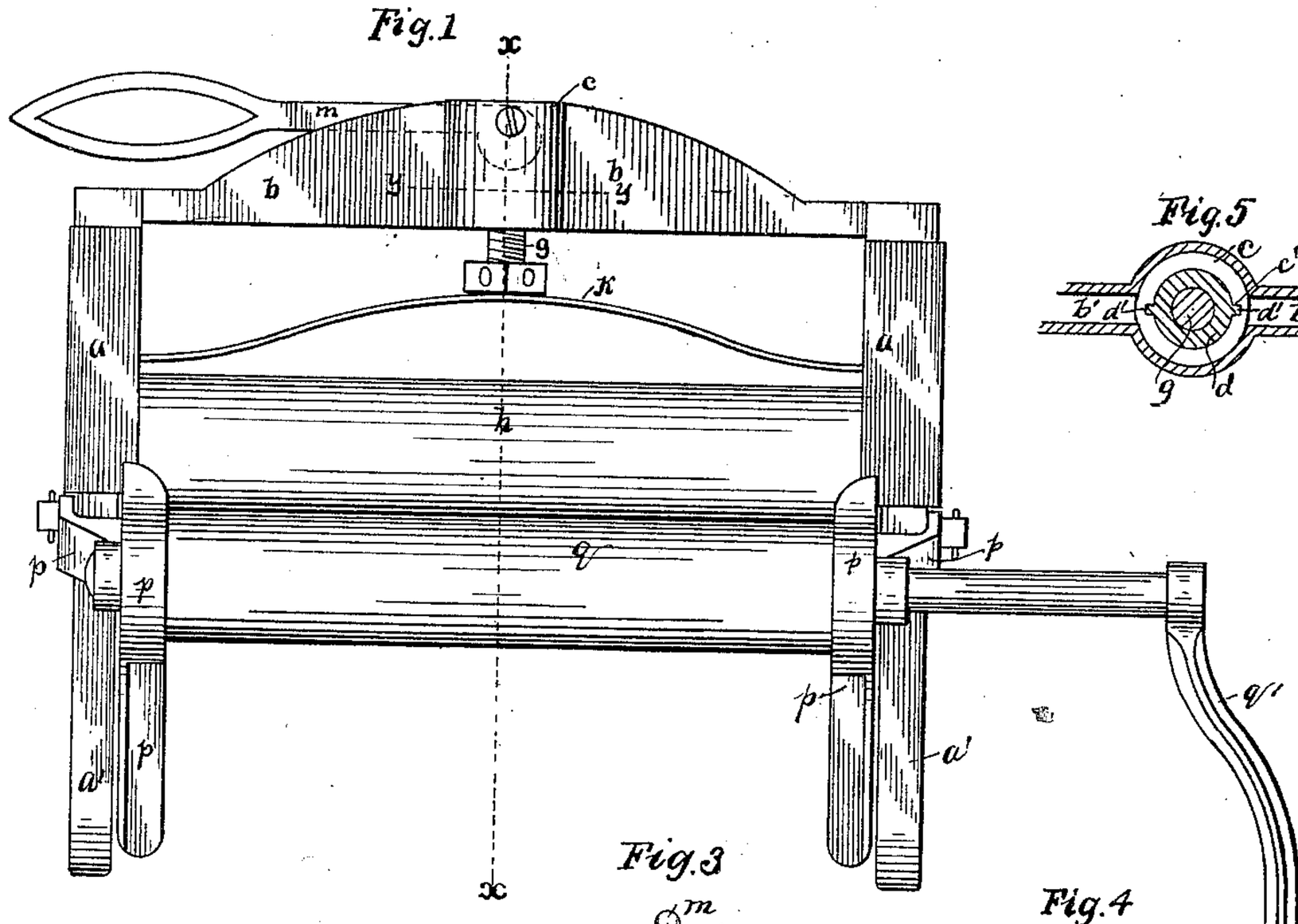


Fig. 5

Fig. 2

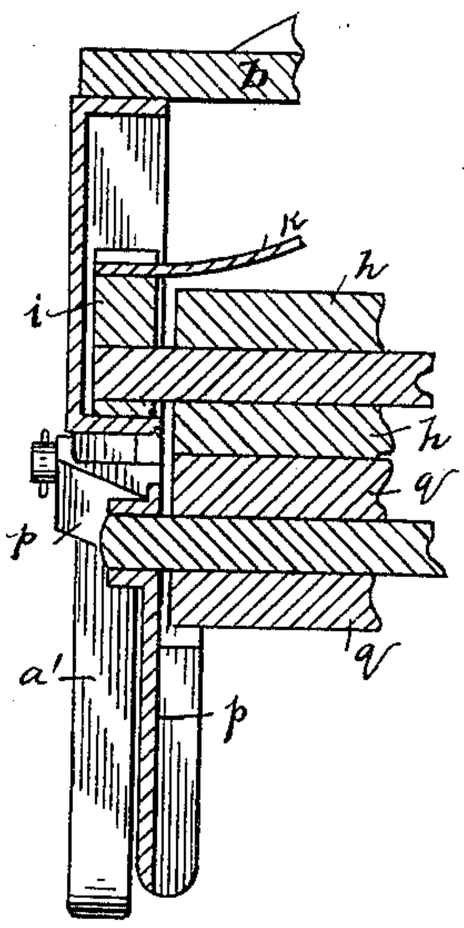


Fig. 3

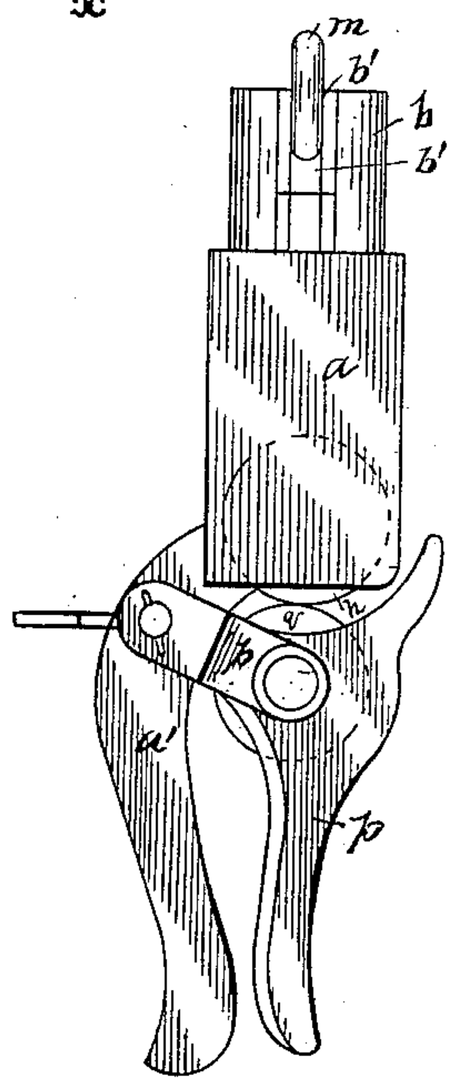
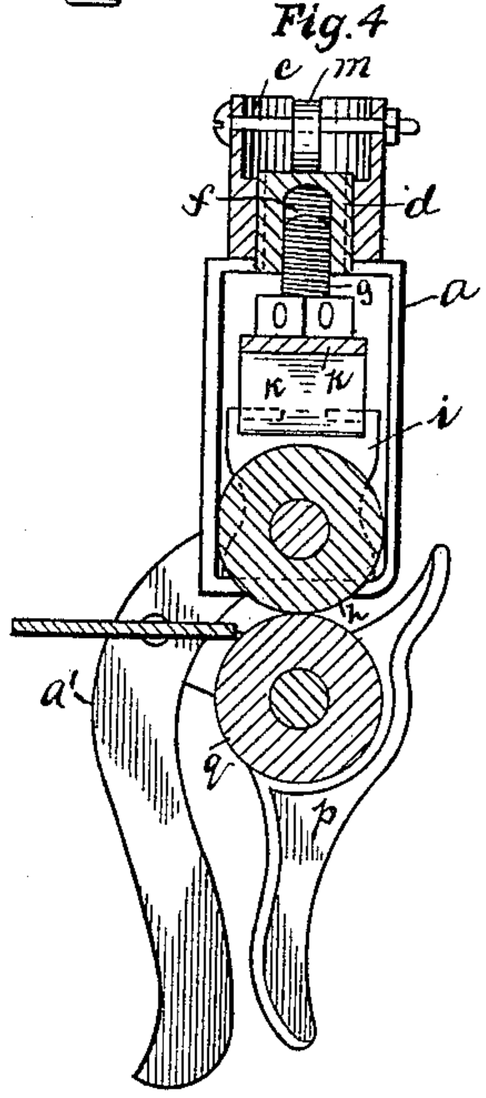


Fig. 4



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THOMAS W. STONE, OF COLUMBUS, OHIO, ASSIGNOR OF TWO-THIRDS TO E. J. WILSON AND O. E. D. BARRON, OF SAME PLACE.

CLOTHES-WRINGER.

SPECIFICATION forming part of Letters Patent No. 432,252, dated July 15, 1890.

Application filed December 14, 1889. Serial No. 333,795. (No model.)

To all whom it may concern:

Be it known that I, THOMAS W. STONE, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Clothes-Wringers, of which the following is a specification.

My invention relates to the improvement of clothes-wringers of that class which are adapted to be attached to the washing-tubs.

The object of my invention is to provide improved means for regulating the pressure upon the rollers in a wringer. This object I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a rear elevation of my improved wringer. Fig. 2 is a vertical longitudinal section of one end of the wringer. Fig. 3 is an end elevation. Fig. 4 is a sectional view taken on line $x\,x$ of Fig. 1. Fig. 5 is a sectional view taken on line $y\,y$ of Fig. 1.

Similar letters refer to similar parts throughout the several views.

As shown in the drawings, the main frame of my device consists of two vertical side pieces a and a connecting top piece b. Each of the side pieces a has the inner face of its upper portion recessed or depressed to form, as hereinafter described, a support for the upper-roller bearing-block. The lower portion of each of the side pieces is formed by a leg a', which extends forwardly and thence downwardly from the under side of the recessed upper portion thereof.

As shown in the drawings, the top piece b is provided with a central vertical slot b' therethrough. The halves of the cross-piece b, formed by the intervening slot b', are each provided with an outward half-cylindrical bend at the center of their lengths to form, approximately, a vertical socket c. The walls of the lower portion of this socket are thickened somewhat on the inner sides, and the inner surfaces of said thickened walls are provided on opposite sides with vertical grooves c'.

Into the lower end of the socket c is inserted loosely a cylindrical plug d. This plug d is provided on opposite sides with projecting lugs d', which when the plug is inserted, as above described, fit and slide within the grooves c'. A screw-threaded socket f is formed in the plug d and extends from the lower end thereof to a point near its upper end. Into this screw-threaded socket is adapted to be screwed, as shown, a screw-threaded pin g, having an enlarged lower end.

Loosely seated within the recess or inner side depression of the upper portion of each of the side pieces a is a bearing-block i of a height less than the height of said recess. The upper end of each of these bearing-blocks has formed therein an inverted-T-shaped groove. Into these grooves, loosely inserted and made to rest upon the upper sides of the blocks, are the ends of an upwardly-bowed spring-strip k, which extends between said side pieces and beneath the screw g, as shown.

Pivoted within the slot of the cross-piece b, above the plug d, is the enlarged head of a lever m. This lever-head is preferably circular in form and is pivoted out of center to form a cam, as shown.

The lower portion of each of the blocks i is provided with a pin or shaft hole, into which are inserted and made to bear loosely the ends of the central rod or shaft, upon which is mounted in the usual manner an ordinary elastic wringer-roller h.

Pivoted to the outer side of each of the legs a' near its upper end is one end of a rearwardly and thence downwardly extending arm p. Pivotally supported by these arms p, beneath and in vertical alignment with the upper roller h, is the shaft of the lower roller q. The shaft of said lower roller is continued outward on one side, and has secured thereto in the usual manner an operating-crank q'.

The method of using and operating my improved wringer is as follows: The wringer is attached to the tub by causing the leg a' and the downward extension of the arm p to embrace the upper portion of the tub wall or side, the leg a' being on the outer side and the arm p on the inner side of said tub-wall. The lever m is then turned to the position shown in the drawings—that is, so that its cam-shaped head will exert a pressure upon the plug d. This pressure will operate to drive downward said plug d and its screw g and cause the enlarged lower end of the latter to press downward upon the spring-strip k. This downward pressure upon said spring-strip

will be communicated from the latter to the bearing-blocks *i*. Owing to the upward pressure of the arm *p*, which will be caused by the entrance of the tub-wall between said arms *p* and the leg *a'*, it will be seen that the lower roller will be elevated sufficintly to come into contact with and press upward the upper roller. The pressure above described as imparted to the blocks *i* through the spring *k* will, in conjunction with the upward pressure of the lower roller, result in the two rollers being pressed into close contact. When goods are passed between the rollers in the usual manner, the spring character of the downward pressure upon the upper roller will admit of a sufficient upward movement of the latter to allow the goods to pass through and at the same time exert a squeezing or wringing effect on the goods. In case it is desired to increase the pressure of the cam upon the spring-strip or decrease the same this may be accomplished by turning or screwing the screw *g* up or down in its socket to regulate the length of its projecting portion. During this process the plug *d* is prevented from turning by lugs *d'*. It is also evident that the downward pressure of the lower roller which exists during the passage through the rollers of the goods will result in an increase in pressure of the arms *p* against the tub side or wall. It will be seen that the attachment of the wringer to the tub will be most firm when the necessity is the greatest.

From the above description it will be seen that my improved wringer is simple in form and can be easily and readily attached to the tub.

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

In a clothes-wringer, the combination, with the frame, substantially as described, having a socket *c* in the cross-piece *b*, rollers *h* and *q*, pivoted in said frame, and bowed spring-strip *k*, supported upon the bearings of said roller *h*, of a plug *d*, having a screw-threaded socket and inserted in said socket *c*, a screw *g* entering said plug-socket, and a cam-lever pivoted above said plug *d*, substantially as described.

THOMAS W. STONE.

In presence of—
NELLIE PERKINS,
C. C. SHEPHERD.