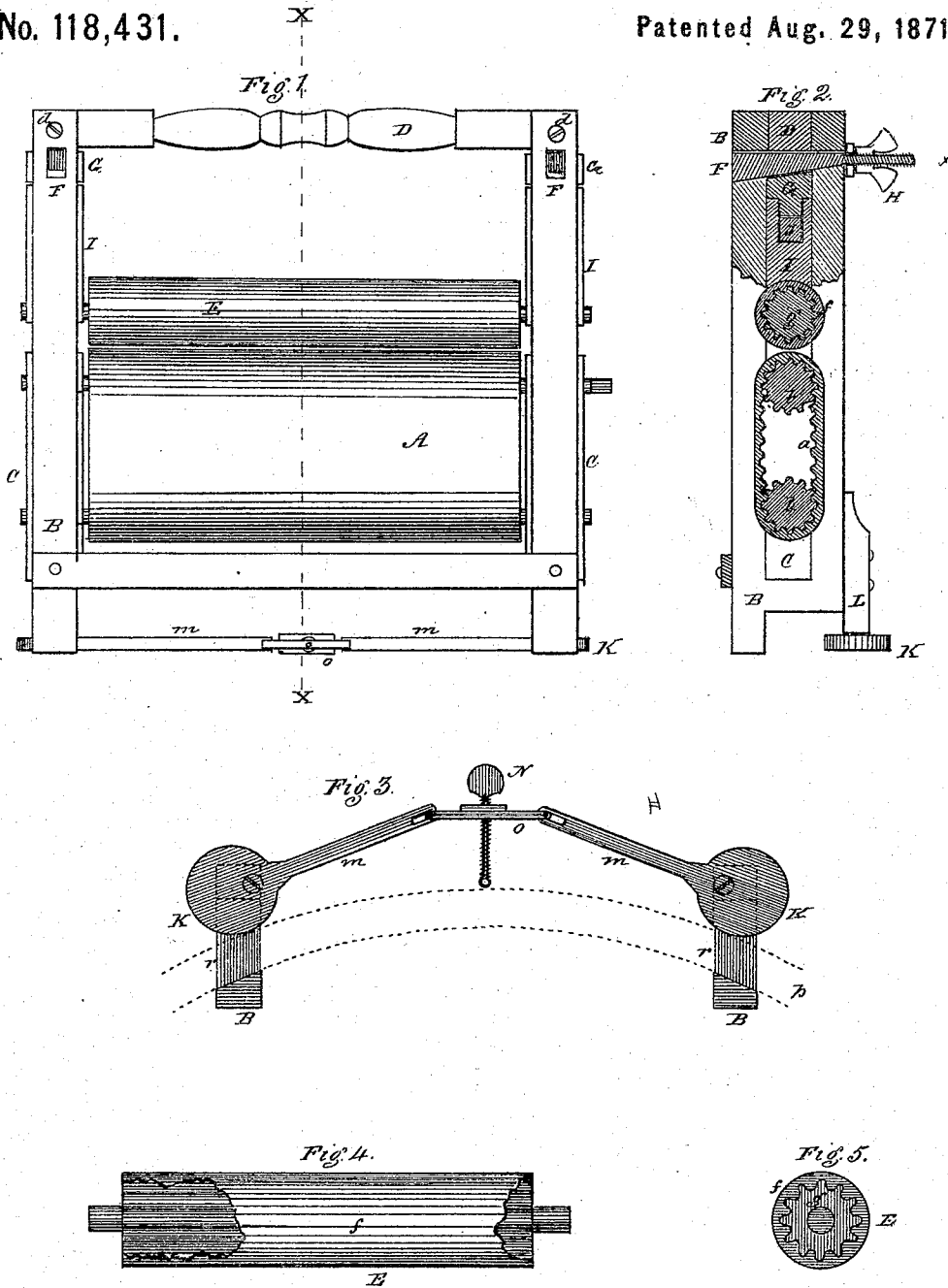


Elisha P. H. Capron's
Impts in Clothes Wringers.

No. 118,431.

Patented Aug. 29, 1871.



Witnesses

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ELISHA P. H. CAPRON, OF HUDSON, NEW YORK, ASSIGNOR TO OSCAR B. GRAY
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IMPROVEMENT IN CLOTHES-WRINGERS.

Specification forming part of Letters Patent No. 118,431, dated August 29, 1871; antedated August 19, 1871.

To all whom it may concern:

Be it known that I, ELISHA P. H. CAPRON, of the city of Hudson, in the county of Columbia and State of New York, have invented new and useful Improvements in Clothes-Wringers; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing forming a part of this specification and to the letters of reference marked thereon.

My invention has for its object to construct the rollers of a clothes-wringer in such a manner that the same will not be liable to become twisted or broken, and so that, in case they should by any means become broken or get out of repair, they may be easily and cheaply repaired by the owner without the aid of a mechanic or the necessity of sending them to the manufactory; and further to provide an improved device for attaching the wringer to the wash-tub or bench. The nature of my improvements consists: First, in making a roller in a novel and peculiar manner by the use or employment of an endless rubber band or web stretched over and operating in connection with two rollers of wood or galvanized metal placed a short distance apart within the frame of the wringer. These rollers are provided with longitudinal corrugations extending their entire length, which fit into corresponding corrugations provided on the inner surface of the endless rubber band or web which is stretched tightly over them, and is prevented from slipping or becoming displaced when in operation by means of the said corrugations. Second, in making another roller in two parts by fitting a rubber cylinder provided on its inner surface with corrugations, upon a roller of galvanized metal or wood, which said roller is provided with corresponding longitudinal corrugations extending the entire length of its surface, so that the rubber will fit tightly thereon, and may be readily removed therefrom and replaced, as may be desired. And it further consists in providing a novel and peculiar device for attaching the wringer to the wash-tub or bench, which consists of an eccentric disk secured to the under side of each leg of the frame, which said disks are provided with slotted arms that extend to near the center of the bottom of the frame, where they are pivoted to a plate or bar which receives a set-screw, by means of

which the wringer is securely attached to the wash-tub or bench.

To enable others skilled in the art to make and use my invention, I will proceed more particularly to describe its construction and operation.

Figure 1 represents a front elevation of my improved clothes-wringer. Fig. 2 is a transverse vertical section of the same taken through the line *x x*, with the upper portion of the side of the frame also in section, to show my improved device for adjusting the pressure of the rollers. Fig. 3 shows a detached view of my improved device for attaching the wringer to the wash-tub or bench. Fig. 4 is a plan view of one of my improved rollers with a portion of the rubber cylinder broken off to show the corrugations. Fig. 5 is an end elevation of the latter.

Letters of like name and kind indicate like parts in each of the figures.

A represents one of my improved rollers, which is composed of an endless rubber web or band, *a*, provided with corrugations on its inner surface, and two rollers, *b b'*, made of galvanized metal or of wood, and secured a suitable distance apart within the frame B of the wringer. The web or band *a* is stretched tightly over the surface of these rollers *b b'*, where they are provided with longitudinal corrugations extending their entire length, which said corrugations correspond with and fit into those provided on the inner surface of the web or band *a*. These rollers *b b'* have bearings in movable blocks *c c*, which fit into a groove or mortise on each side of the frame, and are held in position by means of projecting flanges on their edges, and which may be readily and easily removed from the frame by taking off the top bar D, which latter is secured to the sides of the frame by means of screw-bolts *d d*. The rollers *b b'* may be made adjustable by any suitable and well-known means. The corrugations on the web or band fit into the corresponding corrugations on the rollers, so that there is no danger of its slipping or twisting when the wringer is being operated, and as these corrugations extend the entire length of the rollers the pressure or strain is equal in all parts of the surface of the rubber web or band, and the greater the pressure the less liability is there of slipping. E represents my improved roller, constructed according to the second method above mentioned,

which is made by fitting a rubber cylinder, *f*, provided with corrugations on its inner surface, upon a roller, *g*, of wood or galvanized metal, provided with longitudinal corrugations extending its entire length, which said corrugations correspond with and closely fit into those on the inner surface of the rubber cylinder, so that the latter is kept firmly in its position upon the roller *g* under any amount of pressure that may be brought to bear upon it, and as the said longitudinal corrugations extend from end to end of the roller, the pressure or strain is equal on every part of the surface of the rubber covering, so that it is free from any liability to become twisted or displaced, which would not be the case if the corrugations were not extended the entire length of the roller, as described. This roller is secured within the frame in the ordinary or common manner. *F* is an adjusting-wedge, located and operated within the side of the frame, the upper side of which works in contact with the under side of the end of the bar *D*, while its lower or inclined side rests upon and works in contact with the inclined surface of a presser-block, *G*. The outer end of this wedge is extended beyond the side of the frame, and is provided with a screw-thread, upon which is fitted and works a thumb-screw, *H*, for the purpose of operating the same. On the under side of the presser-block *G* is a tenon, which fits into a mortise in the upper end of another presser-block, *I*, the lower end of which is fitted to receive the journal of the uppermost roller and rests upon the same. Both these presser-blocks are fitted into the mortises or grooves in the sides of the frame, which receive the movable blocks *c c* before mentioned, and are operated by means of the thumb-screw *H* and wedge *F* for the purpose of increasing or diminishing the pressure of the rollers. Within the mortise in the block *I* is a rubber or other spring, *J*, upon which presses the tenon on the block *G* for the purpose of imparting a certain degree of elasticity to the pressure of the rollers. *K K* are eccentric disks secured to the under side of the legs *L L* of the frame, and provided with slotted arms *m m*, extending to near the center of the bottom of the frame, where they are pivoted to a bar or plate, *o*, which receives a set-screw, *N*. These are for the purpose of securing the wringer to the bench or tub, shown in dotted lines *p*. The upper edge of the tub enters the slots *r r* on the under side of the frame, which is securely attached thereto by means of the disks and set-screws.

The advantages of my invention are, first, that the rollers are not liable to get out of shape or become twisted, which is a great disadvantage in all other rollers hitherto used, and entails great expense in repairs, as the roller must, in such case, be replaced by a new one; but by my invention this difficulty is obviated, as the rollers are not liable to get out of order, and if by any means they should do so, or if the rubber becomes worn out, as the rubber web in the one case and the rubber-cylinder in the other, they can be readily removed and replaced by a new one. Also, that with my improved rollers there is no possibility of slipping or twisting, as there would be if the corrugations did not extend the entire length of the rollers. And further, that by my invention gear-wheels on a wringer may be entirely dispensed with, thus effecting a considerable saving in the cost of manufacture.

Having thus described my invention, I may state that I do not claim, broadly, the use of a rubber cylinder or of a rubber web or band upon the rollers of a wringer; nor do I claim a rubber cylinder on an inner roller or shaft when the former is cast or molded solid or "jumped" upon the latter, and held immovable in its position by means of rods secured at their ends to a plate or gear-wheel, as in the patent of S. A. Bailey; but

What I do claim as new, and desire to secure by Letters Patent of the United States, is—

1. The construction and arrangement of the corrugated endless web or band *a*, and corrugated shafts or rollers *b b'*, as herein shown and described, for the purposes specified.

2. Making the rubber cylinder or covering *f* of a roller, *E*, detachable and free from liability to become twisted by means of the corrugations on the inner surface of the said cylinder, which fit into corresponding corrugations provided on the inner roller or shaft *g*, as herein shown and described, and for the purposes specified.

3. The roller *A*, in combination with the roller *E*, both being constructed substantially as described, for the purposes specified.

4. The eccentric disks *K K*, provided with arms *m m*, in combination with the plate *o*, set-screw *N*, and frame *B* of the wringer, substantially as shown and described, and for the purposes set forth.

ELISHA P. H. CAPRON.

Witnesses:

WM. GRAY,
L. PRATT.