T. R. WAY.

Clothes-Wringer.

No. 203,803. Patented May 14, 1878.

Fig. 1.

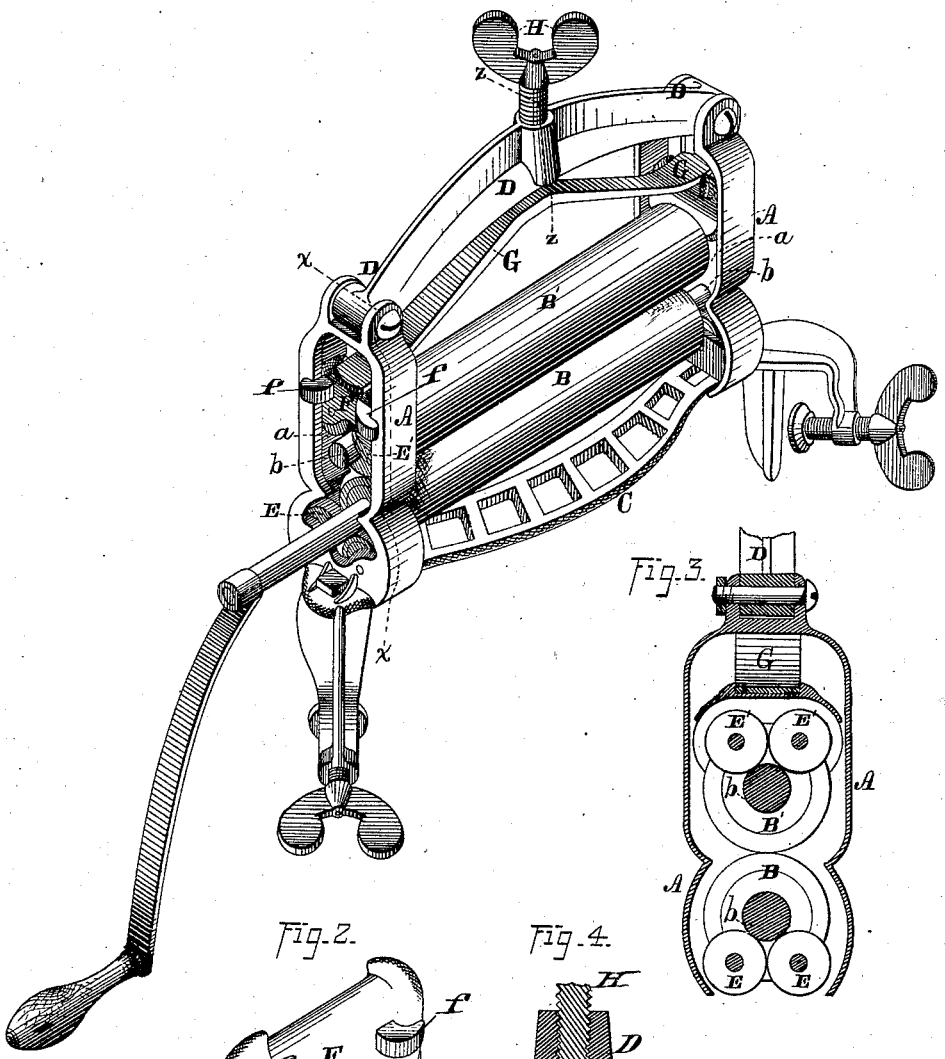


Fig. 3.

Fig. 2.

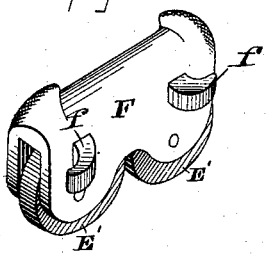
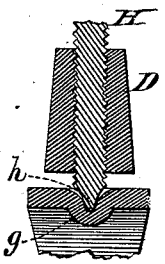


Fig. 4.



WITNESSES:

Jas. E. Hutchinson.

Henry C. Hazard.

INVENTOR.

Thos. R. Way, by

Prindle and Ladd, his Attys.

UNITED STATES PATENT OFFICE.

THOMAS R. WAY, OF SPRINGFIELD, OHIO, ASSIGNOR TO HIMSELF, FRANCIS K. WAY, AND JAMES TODD, OF SAME PLACE.

IMPROVEMENT IN CLOTHES-WRINGERS.

Specification forming part of Letters Patent No. **203,803**, dated May 14, 1878; application filed March 7, 1878.

To all whom it may concern:

Be it known that I, THOMAS R. WAY, of Springfield, in the county of Clarke and State of Ohio, have invented certain new and useful Improvements in Clothes-Wringers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making a part of this specification, in which—

Figure 1 is a perspective view of my wringer complete and ready for use. Fig. 2 is a like view of one of the sliding frames for the friction-rollers detached from the frame of the machine. Fig. 3 is an enlarged section upon line *x x* of Fig. 1, and Fig. 4 is a like view upon line *z z* of said figure.

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

The design of my invention is to increase the efficiency and improve the operation of clothes-wringers; to which end it consists, principally, in a clothes-wringer in which one pressure-roller is driven by or from the periphery of the other roller, of the combination, with the journals of said rollers, of friction-rollers that form rolling bearings for the same, substantially as and for the purpose hereinafter specified.

It consists, further, in providing the semi-elliptic pressure-spring of a clothes-wringer with a central socket for the reception of the pressure-screw, which socket is formed by bending downward the metal at such point, substantially as and for the purpose hereinafter shown.

In the annexed drawing, A and A represent the end pieces of the frame of my device, which are each provided with a vertical central opening, *a*, for the reception of the journals *b* of the rollers B and B′, and are connected together at their lower ends by means of a curved bar, C, and at their upper ends by an arched bar or yoke D.

Journaled within the lower end of each end piece A is a pair of rollers, E, the peripheries of which approach nearly together, which rollers furnish a bearing for, and upon which rests, the journal *b* of the lower roller B, in which position said rollers operate to lessen the friction of said roller.

Within the opening *a*, above the lower roller-journal *b*, is placed a frame, F, which has the form shown in Fig. 2, and is capable of moving vertically within the limits of said opening, and has journaled within its lower side two rollers, E′, that are similar in size and shape to those before described.

The upper roller B′ rests upon the lower roller B, and the friction-rollers E′ in turn rest upon the journals *b* of said upper roller, in which position said friction-rollers are held with a yielding downward pressure by means of a semi-elliptic spring, G, which is placed beneath the yoke D with its ends resting upon the upper ends of the frame F. A set-screw, H, passing downward through the center of said yoke, enables the downward pressure of said spring to be increased or diminished, as desired.

As the motion of the upper roller B′ is derived solely from contact with the periphery of the lower roller B, or from contact with clothing which is moved by the latter, it will be seen that much friction upon the journals of said upper roller would retard its motion and render probable the wear or other injury of the fabrics being operated upon, while by the use of the friction-rollers all liability to such injurious effect is avoided and the motion of the upper roller is rendered as certain as though it was connected with the driving-roller by gearing.

In order that the point *h* of the set-screw H may have a firm bearing and the spring G may not be liable to lateral displacement, a socket, *g*, for the reception of said point, is formed by pressing the metal of said spring, which is immediately beneath the latter, downward in a curve, as shown in Fig. 4, such socket, which is in effect a corrugation, rendering said spring stronger and more rigid at the point where the greatest strength is required and where the greatest liability exists to breakage.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

1. In combination with the journal *b* of the roller B′, the frame F, fitted within the opening *a*, and provided with the lugs *f* and friction-rollers E′, and capable of vertical move-

ment within said opening, substantially as and for the purpose specified.

2. In combination with the pressure-screw of a clothes-wringer, a semi-elliptic pressure-spring, provided with a central socket for the reception of the end of said pressure-screw, said socket being formed by bending said spring downward at such point, substantially as and for the purpose shown.

In testimony that I claim the foregoing I have hereunto set my hand this 1st day of March, 1878.

THOMAS R. WAY.

Witnesses:
A. P. LINN COCHRAN,
C. M. HUBBARD.