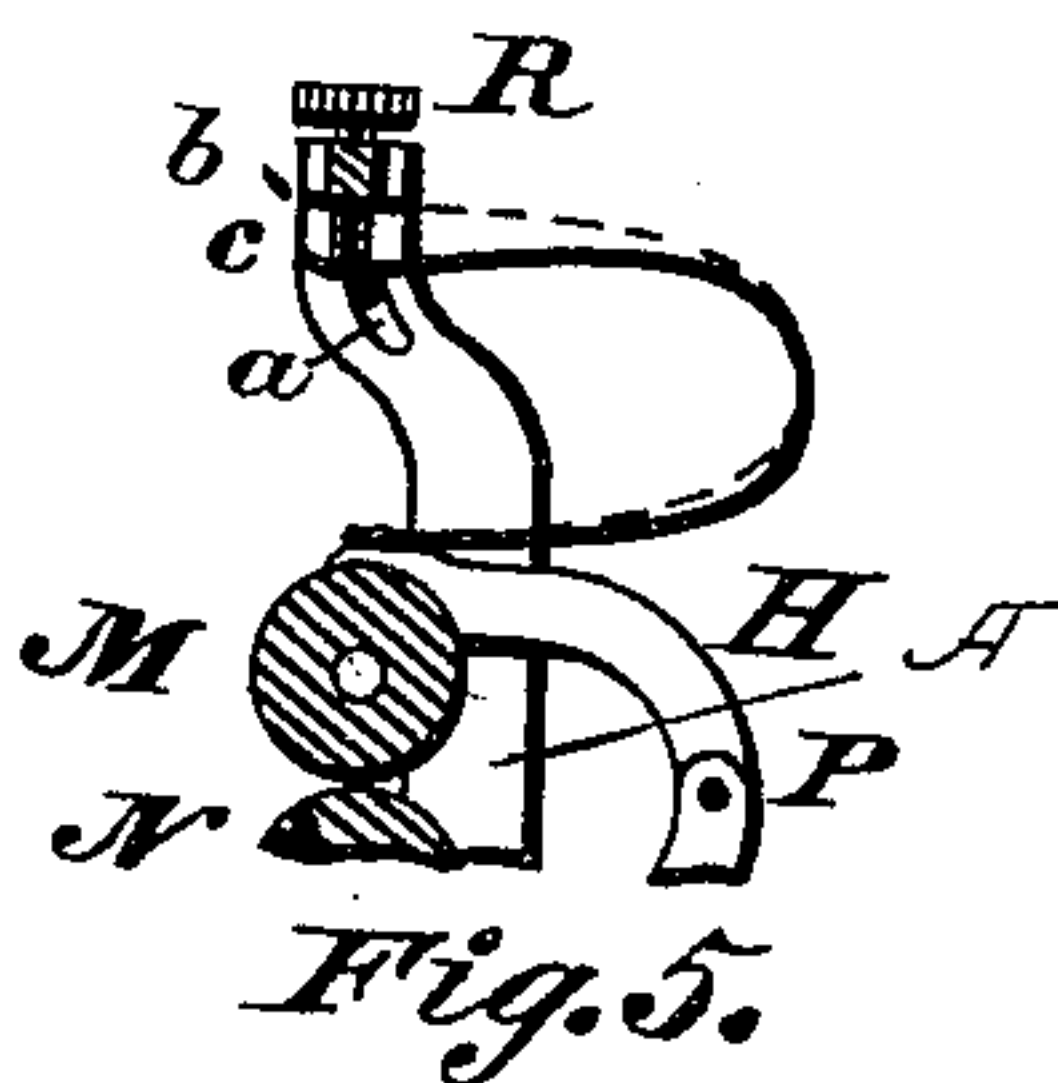
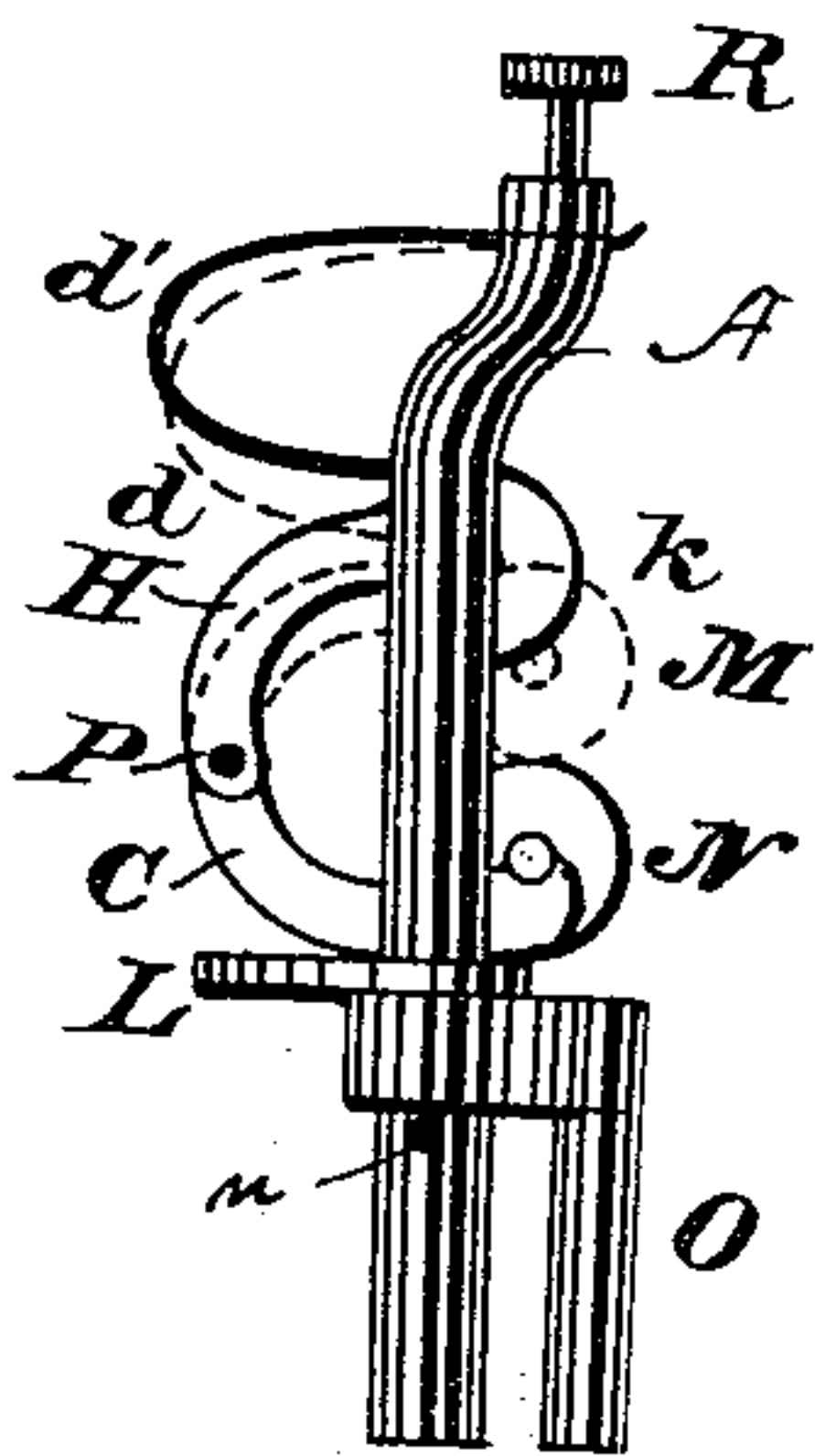
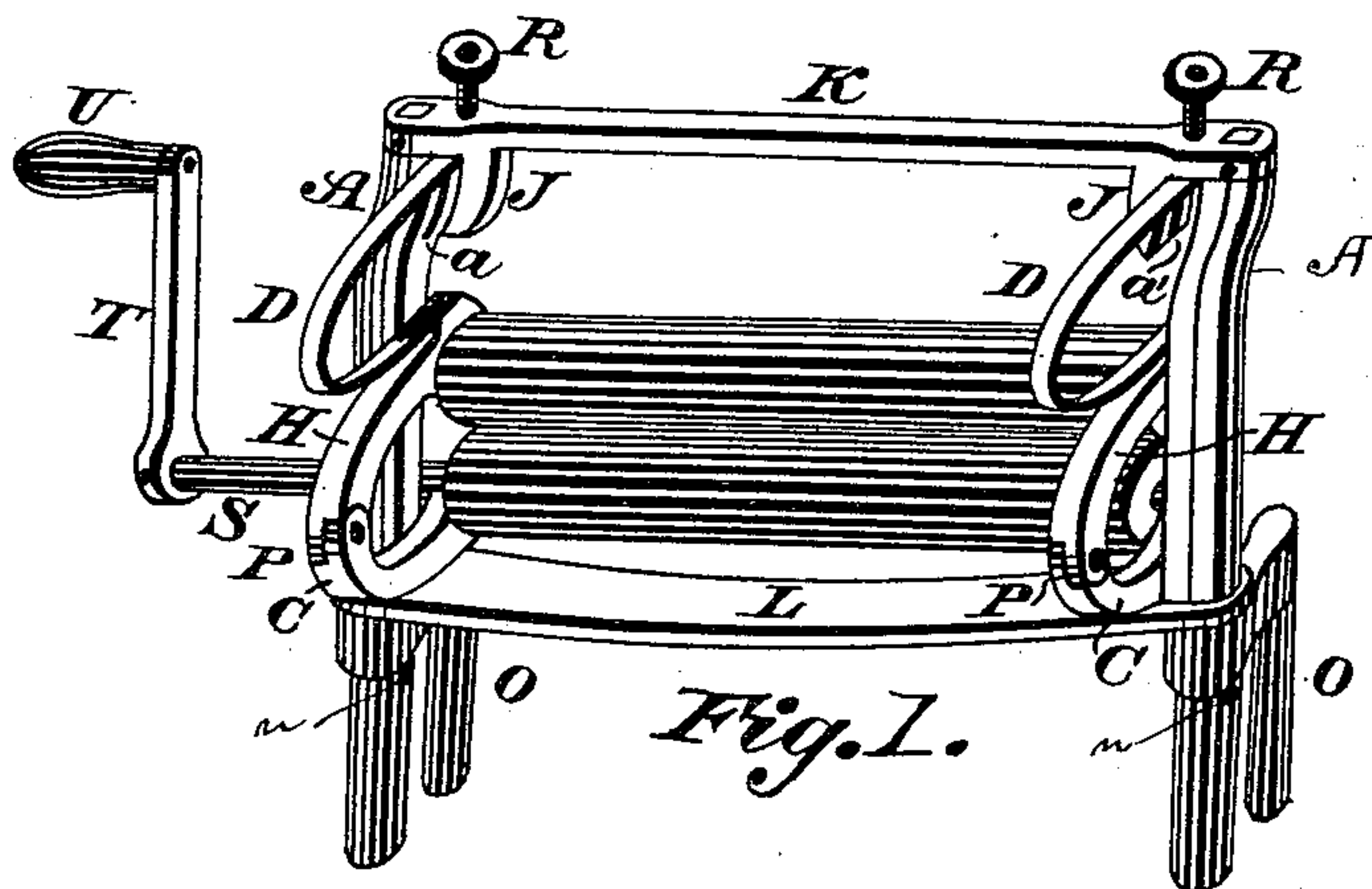
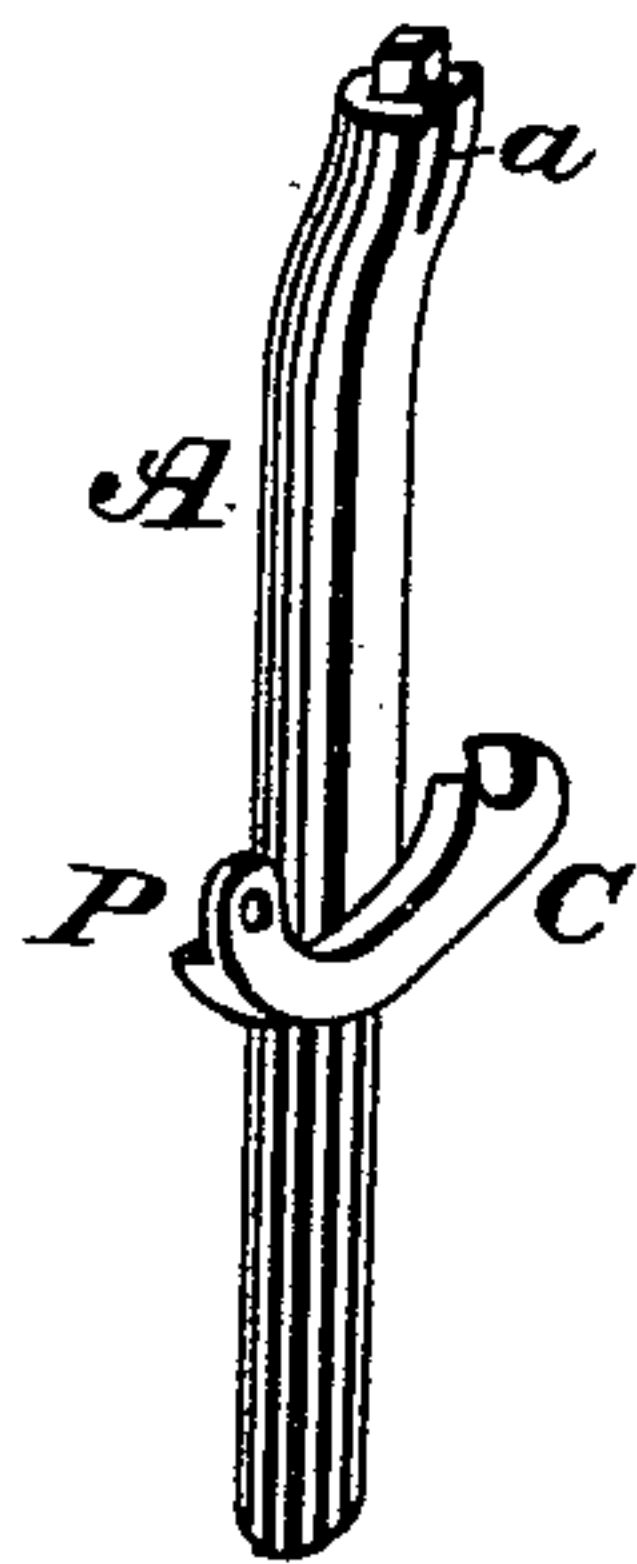


(No Model.)

R. ZIMMERMAN.
CLOTHES WRINGER.

No. 344,337.

Patented June 22, 1886.



WITNESSES:

Harry Freese
Chas. R. Miller

INVENTOR
Reinhold Zimmerman
BY
W. H. Miller
ATTORNEY

UNITED STATES PATENT OFFICE.

RIENHOLD ZIMMERMAN, OF CANTON, OHIO.

CLOTHES-WRINGER.

SPECIFICATION forming part of Letters Patent No. 344,337, dated June 22, 1886.

Application filed April 18, 1885. Serial No. 162,635. (No model.)

To all whom it may concern:

Be it known that I, RIENHOLD ZIMMERMAN, a citizen of the United States, and a resident of Canton, county of Stark, State of Ohio, have invented a new and useful Improvement in Clothes-Wringers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification.

My invention relates to an improvement in clothes-wringers; and it consists in the parts and combinations of parts, as will be more fully described.

In the accompanying drawings, Figure 1 is a view in perspective of my improved device. Fig. 2 is a similar view of one of the standards. Fig. 3 is a view of one of the springs. Fig. 4 is a view in end elevation, and Fig. 5 is a view in transverse section.

A represents the upright posts of the frame, constructed, preferably, of malleable iron, and each provided on its inner face with an arm or roller-support, C, formed integral therewith. Each arm C extends out to front and rear of the post, and in the front end is formed the bearing for the roller-shaft S. On the other end of the arm is formed the lower part of the hinge P.

At the upper end of the post A, and on the inner face thereof, is shown a groove, *a*, into which the end *h* of the cross-bar F of the spring D, Fig. 3, is placed, and on the extreme end is a tenon, onto which the top frame-piece, K, is fastened. The spring D, as shown in Fig. 3, is a half-elliptic, the upper end of which is slightly curved, and at the base of the curve there is a cross-bar, F, the ends of which project out on opposite sides a short distance—say to the extent of one-fourth of an inch—and have a diameter of about one-fourth of an inch. At the other end of the spring will be seen the rivet-holes by which the spring is attached to the upper-roller arm H, as shown.

Fig. 4 is an end elevation in which is shown the clamp-hook O, by which the wringer may be held to the tub or other vessel, the end of the lower cross frame-piece, L, the post A, with the arm C or roller-support for the short end of shaft S, and the arm H, hinged to it at P. In the other end of the arm H is the bearing for the shaft of the roller M. The

spring D rests on the top of the arm H, and beneath the thumb-screw R.

The operation of these parts, as shown in Fig. 4, is as follows: The roller M is held and controlled in its upward movements by the arm H, (the lower position of the roller M is shown by the dotted lines *k*,) and as the roller M is moved up and away from roller N by the insertion of large articles between them (to a position as shown by the solid lines) it has also moved back as well as up. By this movement the spring or the lower end thereof has been forced up from and back of the position as shown by the dotted lines *d* to that shown by the solid line *d'*. By this arrangement of the parts and the movements described the pressure on the spring will be backward at the same time that it is upward, giving end-pressure as well as an upward pressure on the lower half of the spring; and by this method of construction a much lighter spring may be used, one not so liable to break, and yet produce the required pressure on the roller.

In Fig. 5 is shown the inside face of the post or end piece A, with roller M and arm H in position and the thumb-screw R turned down, so as to force the spring from a position shown by the dotted line *b* to that shown by the solid line *c*, the upper end of the spring being guided in its downward movement by the cross-bar F and the groove *a*.

In Fig. 1 is shown the top frame-piece with its downwardly-projecting lugs J J, in which there is shown a groove, *a'*, corresponding to the groove *a*, (shown at the top of the post A,) for the engagement of the cross-bar F on the spring D. At either end of this frame-piece is shown a thumb-screw, R, by which the pressure on the rolls may be regulated, as shown in Fig. 5.

Having explained the several parts of my invention, I will now proceed to place or arrange the parts, as shown in Fig. 1. The cross frame-piece L is placed on the end posts A, close to the bottom of the arm C. The clamping-hook O is next placed on the post tight against the cross-piece L, and held in place by a pin, *n*, through the post at the under side of the clamp, so as to allow the clamp to turn on the post to adjust itself to the

tub or other vessel on which it may be used. Roller-shaft S extends from the journal-box on the arm C of the post A over the arm C to a point extending far enough from the other post A to allow the use of the crank-arm T and the handle U. The crank-arm may be attached to the shaft by the use of a thread or pin. The shaft between the arms C C is covered with rubber in the usual way of making such rollers. The upper roller, M, only differs from N in this, that the shaft is only long enough to extend from and over the journal-boxes in the arms H H. The springs D D are attached to the arms H H, after which the arms H H are attached to the arms C C by their hinge-ears, as seen at P, either by the use of a rivet or bolt. The roller M is then placed in position, and the arms H H brought down with the journal-boxes onto the journals of the roller M. The spring is then pressed down until the end of the cross-bar enters the grooves *a*. The top piece, K, is then put on by passing the groove *a'* down over the end of the cross-bar on the spring and over their tenons on the upper end of the posts, in which position it is held by a through-pin. The thumb-screws are then turned in to give such pressure as may be required at either end of the roller. Except the rubber and the steel used

in the roller, and the springs, I prefer to use malleable iron for all the parts.

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

1. In a clothes-wringer, the combination, with the side posts having arms C formed integral therewith, the latter being provided with bearings, of a roller-shaft pivoted in said bearings, arms H, pivoted to said arms C, and carrying the upper roller, a top piece or bar secured to the side posts, and springs for holding the upper roller in contact with the lower roller.

2. The combination, with side posts having grooves *a* near the upper ends thereof, and upper and lower wringer-rolls, of the top piece or bar secured to the side posts and provided with depending lugs, the latter having grooves *a'* therein, springs resting between the top piece and upper roller and provided with cross-bars F, and thumb-screws for adjusting the springs.

In testimony whereof I have hereunto set my hand this 10th day of April, A. D. 1885.

REINHOLD ZIMMERMAN.

Witnesses:

CHAS. R. MILLER,
A. P. GOULD.