E. M. Stevens,

Wringer,

No. 35,115. Patented Apr. 29, 1862.

Fig. 1.

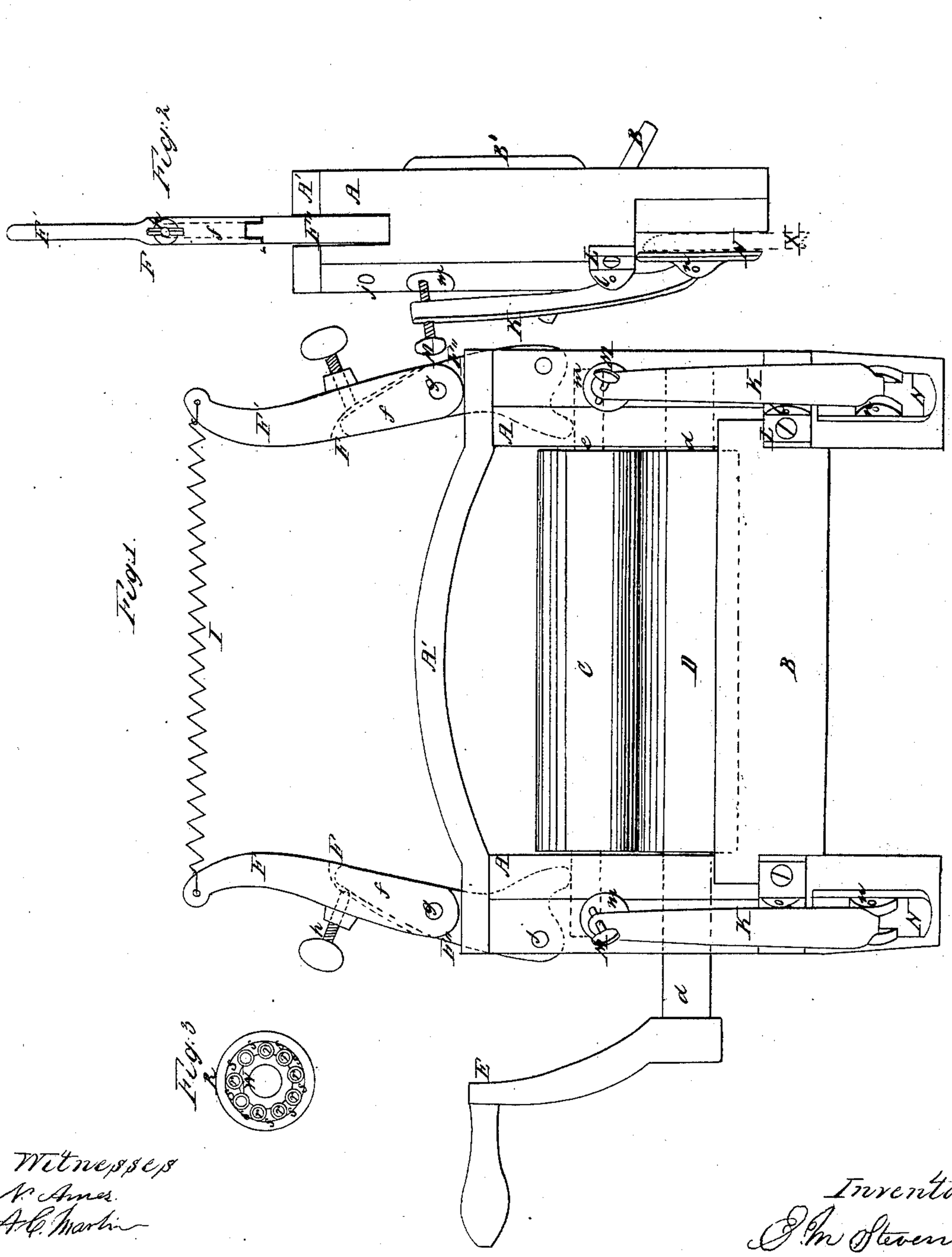

Fig. 2.

Fig. 3.

Witnesses
N. Ames.
A. G. Martin

Inventor
E. M. Stevens

UNITED STATES PATENT OFFICE.

E. M. STEVENS, OF BOSTON, MASSACHUSETTS.

IMPROVED CLOTHES-WRINGER.

Specification forming part of Letters Patent No. **35,115,** dated April 29, 1862.

To all whom it may concern:

Be it known that I, E. M. STEVENS, of Boston, in the county of Suffolk and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Machines for Wringing Clothes; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation thereof, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a front view, Fig. 2 an end view, and Fig. 3 a transverse section, of one of the rolls.

Like parts are indicated by the same letters in all the drawings.

The nature of my invention consists, first, in making the levers F F jointed or in two parts, F′ F″, and providing the same with thumb-screws *h*, whereby more or less pressure may be readily given to the axle of the roller C, as may be required in wringing clothes of different body or thickness; second, in making the core W, Fig. 3, of the rolls fluted and fitting into the flutes cylinders of rubber, *r*, surrounded by a hollow rubber cylinder, R, and also in vulcanizing the rubber upon said core, whereby the rubber is made to adhere more securely to the core than it could otherwise be made to do, while at the same time, owing to the open spaces *s*, more elasticity is obtained from the same amount of rubber; and, third, in constructing the lever-clamps K of a clothes-wringing machine with self-adjusting feet N, so as to fit the sides of any tub whatever its thickness and whether uniform or not, and thus by presenting a large smooth surface to the outside of the tub prevent the same from being indented or marred.

To enable others skilled in the art to make and use my machine, I will now describe its construction and operation.

A A are the upright parts of the frame, which are connected by means of the curved slat A′, Fig. 1, at the top and the slat B′, Fig. 2, on the back.

B is the inclined board for conducting the water into the tub.

D is the lower cylinder, one extremity of whose axle *d* passes through one of the uprights A and is provided with a crank, E, the other extremity entering the opposite upright, as represented by the dotted lines in Fig. 1.

C is the upper cylinder, the ends of whose axle *c* turn in longitudinal slots in the uprights A A. This cylinder C is made to press upon cylinder D by means of the spring-levers F F, which turn on fulcra *j j* in slots in the frame A A, the short ends of the levers, as represented by the dotted lines in Fig. 1, bearing upon the axle *c*, while the upper ends of the levers are drawn toward each other by means of the spiral spring I. By raising the axle *c* of cylinder C it is obvious that the upper ends of the levers F F will be thrown farther apart, and the stiffer the spring I the harder the cylinder C will be pressed upon the cylinder D. It is also evident that in wringing very thick and bulky articles the upper cylinder should be allowed to rise farther from the lower than in wringing articles less in thickness and bulk, and in order to readily adjust the pressure to the various kinds of clothes to be wrung or passed between the cylinders I make the levers F F in two parts, F′ and F″, F′ being mortised to receive the tenon *f*, forming the upper half of F″, as represented by the dotted lines in Figs. 1 and 2. The two halves F′ and F″ are united by means of pivots *g*.

h h are thumb-screws passing through nubs on the outer edges of F′ into the mortises till their ends rest against the tenons *f*, as represented by the dotted lines in Fig. 1, by means of which screws it is obvious that the upper ends of F′ F″ may be brought nearer together or farther apart at pleasure, and thereby more or less of tension given to the coil-spring I.

The core W (see Fig. 3) of the cylinders C D is fluted, and in the flutes are placed tubes or solid cylinders of rubber, *r*, before it is vulcanized, and encircling these is a tube of rubber, R, thus leaving the spaces *s* between the core W, cylinders *r*, and tube R. After the rubber is placed in the proper position on the core it is vulcanized, and by that means the core and the rubber are very closely and firmly united. The utility of the spaces *s* has been mentioned above.

K K are the lever-clamps, (the shape and

position of which are shown in Figs. 1 and 2,) turning on the fulcra *l l* in the metallic pieces L, which are attached to the uprights A A by means of screws.

M M are thumb-screws passing through the upper extremities of the levers K, and *m m* are metallic disks embedded in the wooden uprights for the ends of the thumb-screws to bear against.

N N are the self-adjusting feet or clamps, constructed as shown in Figs. 1 and 2, being attached to the tenons on the lower extremities of the levers K K by means of pivots *n n*. The inside of these feet is a little concave, so as to conform more nearly to the exterior side of a circular tub.

From the above description it is plain that the inner face of the feet N will bear flat and firm upon the side of any tub (as X, represented by dotted lines in Fig. 2) whatever its thickness or whether the same be uniform or not, thereby preventing the tub from being marred or indented, as well as confining the wringer to it more firmly and securely than by any other device extant.

Having thus described the nature of my improvement, what I claim as my invention, and desire to secure by Letters Patent, is—

1. The jointed levers F F, provided with thumb-screws *h h*, substantially as set forth, and for the object specified.

2. Making the core W of the rolls fluted and fitting into the flutes cylinders of rubber, *r*, surrounded by a rubber tubing, R, substantially as and for the objects specified.

3. The combination and arrangement of the lever K, self-adjusting foot N, and thumb-screw M, substantially as described, and for the objects specified.

E. M. STEVENS.

Witnesses:
N. AMES,
A. C. MARTIN.