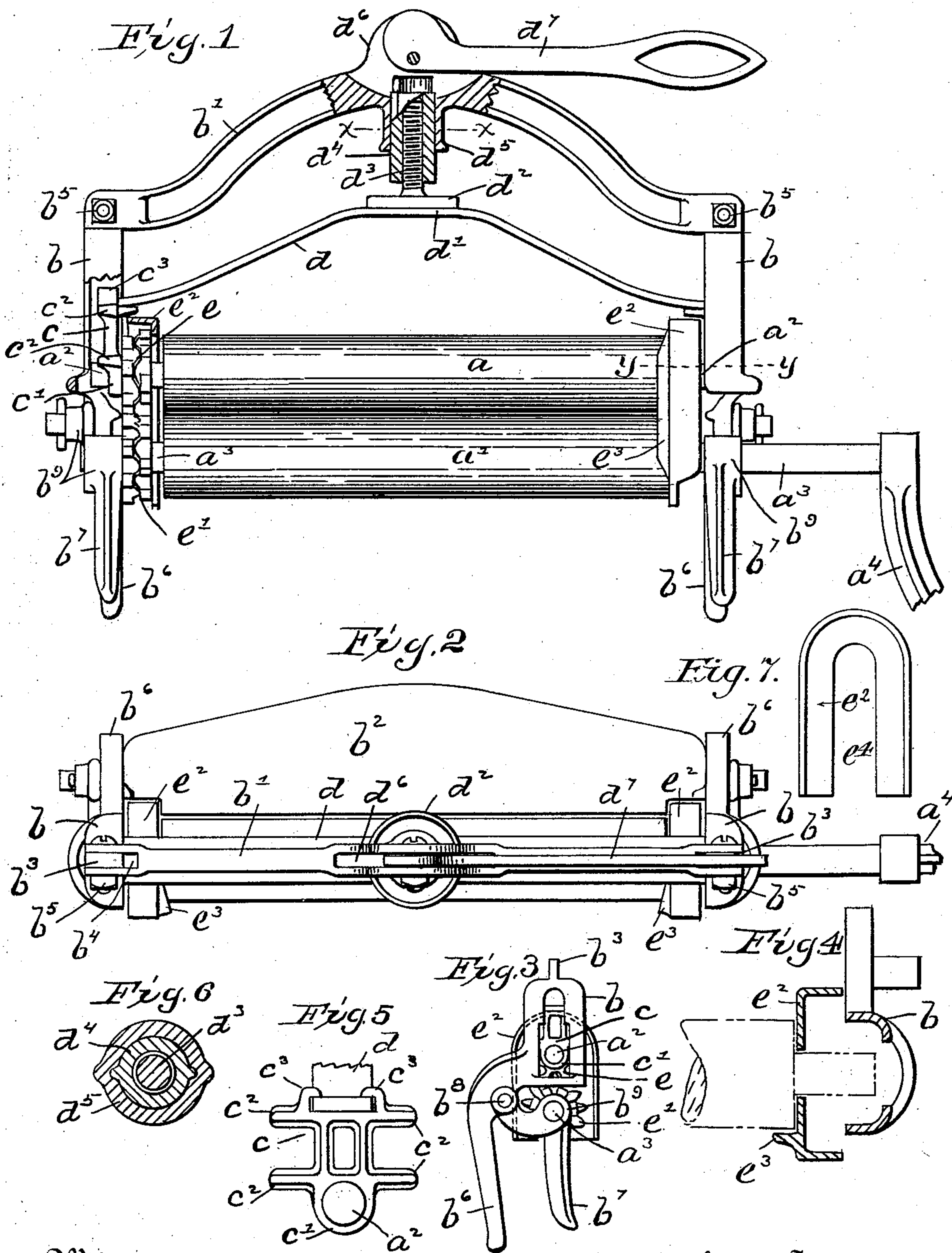


(No Model.)

C. W. REEVES & C. W. LENTZ.
CLOTHES WRINGER.

No. 591,295.

Patented Oct. 5, 1897



Witnesses
J. M. Gridley
Chas. J. Meloh

Inventors
Charles W. Reeves
and Charles W. Lentz
By their Attorneys
Amos M. T. T. T.

UNITED STATES PATENT OFFICE.

CHARLES W. REEVES AND CHARLES W. LENTZ, OF COLUMBUS, OHIO, ASSIGNORS TO THE STONE MANUFACTURING COMPANY, OF SAME PLACE.

CLOTHES-WRINGER.

SPECIFICATION forming part of Letters Patent No. 591,295, dated October 5, 1897.

Application filed May 25, 1896. Serial No. 593,054. (No model.)

To all whom it may concern:

Be it known that we, CHARLES W. REEVES and CHARLES W. LENTZ, citizens of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Clothes-Wringers, of which the following is a specification.

Our invention relates to improvements in clothes-wringers; and it consists in the constructions and combinations of parts hereinafter described, and set forth in the claim.

In the accompanying drawings, Figure 1 is a side elevation of a wringer embodying our invention with some of the parts broken away. Fig. 2 is a plan view of the same. Fig. 3 is an end elevation showing a part of the frame and some of the operating devices located therein. Fig. 4 is a detail view in section, taken on the line *y y* in Fig. 1. Fig. 5 is a detail view of the bearing-supports and spring connection for one of the rolls. Fig. 6 is a transverse sectional view on the line *x x* in Fig. 1. Fig. 7 is a front view of the housing or gear-shield.

Like parts are represented by similar letters of reference in the several views.

In the said drawings, *a* and *a'* represent the usual compressing-rolls constructed with rubber or elastic peripheries in the usual manner. These rolls are each provided at each end with projecting trunnions *a² a³*, journaled in suitable bearings supported on the main frame, one of the trunnions *a³* being extended and having secured thereto a handle *a⁴*, to which the power to drive the rolls is applied.

The main frame consists, essentially, of four connected parts—viz., side standards *b b*, a connecting-arch *b'*, connecting said standards at the top, and a connecting-bar *b²*, which connects said standards at the bottom, said bar *b²* being adapted to form the usual drain-board. The upper part of each of the side standards *b b* is formed of a semicylindrical shape in cross-section and is surmounted at the top with a lug or projection *b³*, by means of which it is attached to one end of the arch *b'*, the respective ends of the arch being bifurcated, as shown at *b⁴*, to receive the same, a fastening-bolt *b⁵* being extended through the parts to fasten them securely together.

The lower part of each of the side standards *b b* is offset and projected downwardly to form a leg *b⁶*, which constitutes one side of the clamp by means of which the frame is secured to the tub or other receptacle. The other side of the clamp *b⁷* is pivoted, as shown at *b⁸*, to the standard *b*, and has a bearing *b⁹*, in which the trunnion *a³* of the lower roll is seated, so that a downward pressure of the rolls causes the part *b⁷* to approach the part *b⁶*, and thus firmly clamp the tub or other receptacle when pressure is placed on the rolls, as hereinafter more fully specified.

The upper portion of each of the standards *b* is adapted to form a housing and guide for the supporting-head or bearing-support *c* for the upper roll. These bearing-supports *c* have in the lower end a bearing *c'*, in which the trunnion *a³* is journaled. They also are provided with laterally-extending lugs *c²*, which fit in the cylindrical portion of the side frames *b* and form guides for the vertical movement of the upper roll. Each of the heads *c* is further provided with upwardly-extending hook-shaped lugs *c³*, adapted to engage and hold the end of the pressure-spring *d*. This spring *d* is in general outline of the semielliptical type, and instead of being curved throughout its length it is formed at the center with a flat portion *d'*, and in contact with this flat portion *d'* there is a flat head *d²*, formed on the bottom of an adjusting-screw *d³*, which is adapted to be adjusted in a vertically-moving head *d⁴*, sliding in a socket *d⁵*, formed in the arch *b'*. Above the socket *d⁵* the arch is bifurcated, as shown at *d⁶*, and there is pivoted in this bifurcated portion a cam-lever *d⁷*, adapted when turned on its pivotal center to come in contact with the top of the head *d⁴* and thus produce more or less pressure on the spring *d*.

The rolls *a a'* are caused to rotate together by intermeshing gears *e e'*, secured to the journal at each end of said rolls. These gears are placed on the inside of the frame and are covered and protected by a housing *e²*, which fits over said gears and serves as a shield, which housing or shield has a slotted opening *e⁴*, which extends from the bottom of the housing upwardly, so that the said housing may be placed over the respective roll-shafts

or journals from the top, and when so placed will hang freely on the upper roll-shaft, thus insuring perfect freedom in the respective parts. Each of the housings e^2 is further provided with a laterally-projecting lip e^3 , which extends outwardly along the rolls a and a' and presents a narrow edge against which the clothes contact in passing through, so as to more fully protect them from dirt or grease.

By the arrangement described we place the bearings for the rolls at the extreme ends of the trunnions and have the intermeshing gears between the said bearings and the ends of the compressing-rolls.

By having the flat bearing-surfaces on the spring and the adjusting-screw, respectively, a more even pressure on the respective ends of the rolls is secured, which is transmitted to the rolls at the extreme ends of the trunnions, so that a more even and uniform pressure in the lengths of the rolls is secured than when the gears are placed on the outside and the bearing-supports placed next to the ends of the rubber rolls.

By having the arch b' of a single piece, which is preferably made of malleable iron, and having the bifurcated portions, as described, a frame of extreme simplicity is secured which is very strong and not liable to become disarranged or out of adjustment.

The standards being semicircular in the main body and open at the bottom, the upper roll is allowed a free adjustment within said standards, so that the clamping parts b^6 b^7 will be adapted to operate on any thickness of tub or other device to which they are

to be secured. It will be understood that as the spring is compressed the rolls will be forced downwardly, so that the clamping part b^7 , turning on its pivotal bearing b^8 , will tightly engage the part to which it is to be clamped, and any additional pressure caused by the separating of the rolls in operation will create an additional clamping pressure on the tub or other receptacle.

Having thus described our invention, we claim—

In a wringer the combination with side standards having downwardly-projecting legs and bearing-guides, an arch constructed in a single piece and formed at each end to engage lugs on said standards, said arch being provided at the center with a socket and a bifurcated portion, an adjusting-screw and clamping-lever in said socket and bifurcated portion respectively, an upper roll having bearings fitted in the bearing-guides of said standards, a lower roll journaled in hinged legs pivoted to said standards, a spring over the upper roll, a flat head on the adjusting-screw and an opposing flat bearing-surface on the spring substantially as and for the purpose specified.

In testimony whereof we have hereunto set our hands this 29th day of February, A. D. 1896.

CHARLES W. REEVES.
CHARLES W. LENTZ.

Witnesses:

JOHN J. LENTZ,
LINCOLN FRITTER.