(No Model.)

M. N. LOVELL.

CLOTHES WRINGER.

No. 450,080. Patented Apr. 7, 1891.

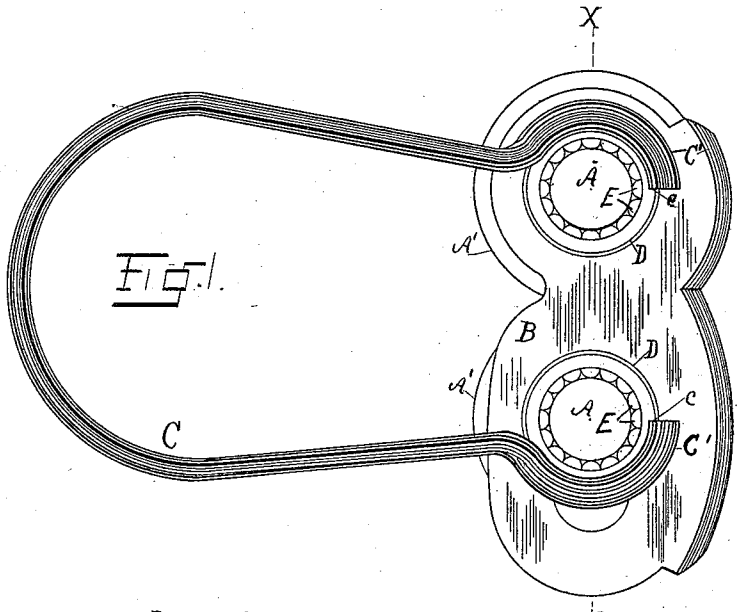


Fig. 1.

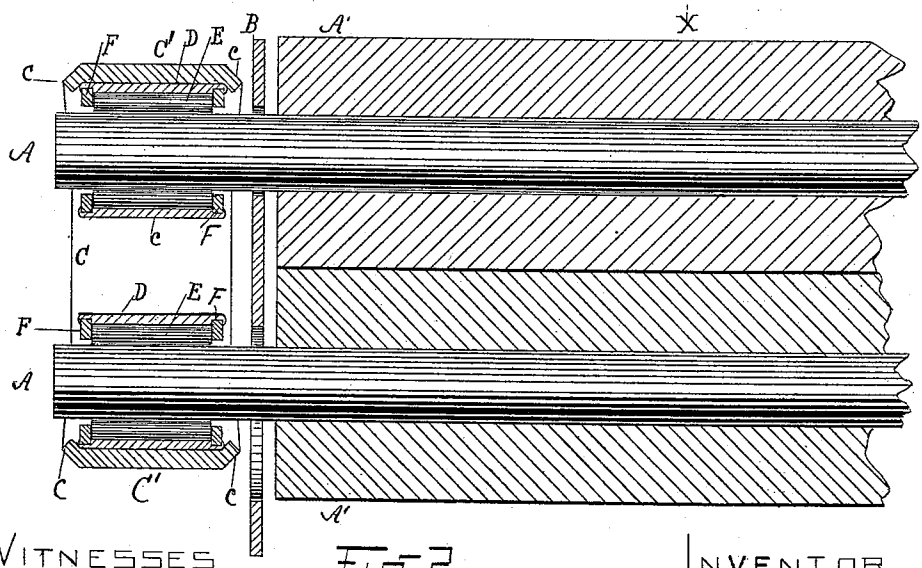


Fig 2

WITNESSES

Wm. Marks jr.

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INVENTOR

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

MELVIN NEWTON LOVELL, OF ERIE, PENNSYLVANIA, ASSIGNOR TO THE LOVELL MANUFACTURING COMPANY, LIMITED, OF SAME PLACE.

CLOTHES-WRINGER.

SPECIFICATION forming part of Letters Patent No. 450,080, dated April 7, 1891.

Application filed December 19, 1890. Serial No. 375,195. (No model.)

To all whom it may concern:

Be it known that I, MELVIN NEWTON LOVELL, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Clothes-Wringers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to clothes-wringing machines, and particularly to that type of clothes-wringers in which the expressing-rolls are held within the ends of C-formed springs, which give to the rolls their expressing-power; and it consists in certain improvements in the construction thereof, as will be hereinafter fully set forth, and pointed out in the claims.

The object of the invention is to provide clothes-wringers of the type herein named with anti-friction roller-bearings.

In the accompanying drawings my invention is illustrated as follows:

Figure 1 is an elevation view of one end of a clothes-wringer of the type above named with my improvements thereon. Fig. 2 is a vertical section view taken on the line *x x* in Fig. 1.

In the type of clothes-wringer shown, as commonly constructed, when the springs are made of steel, so far as I am aware, the journal-bearings of the roll-shafts are formed on the ends of the springs by forging thereon a half-box, in which the roll-shafts lie. The construction and finish are crude, and the machines when in use run very hard, and the wear on the journals is great. I obviate these ojections by providing the journals with anti-friction bearings; but in order to adapt such machine to receive and retain such bearings certain new and improved details of construction are required, and these constitute the essence of my invention. The construction shown in the accompanying drawings is as follows:

A A are roll-shafts; A′ A′, the rolls; B, a metal shield, and C the springs. These parts are made substantially as in all wringers of this type, except a peculiar formation given to the spring at its ends to form a seat C′ for holding the roller-bearing case in place.

The anti-friction roller-bearings consist of a cylindrical case D, with fixed end rings F and rollers E. The cylindrical case D is made of common tubing properly finished on the inside to form a surface for the rollers E and seats for the end rings, which are held in place by turning the ends of the case down over them. The ends of the springs C are formed with sufficiently large curves to form proper seats C′ to receive the roller-bearing cases, and, if desired, there is formed on the edges of the seats C′ flanges *c* to hold the bearing-cases from longitudinal movement.

The frictional contact of the outer surface of the cylinder D and the inner surface of the seats C′ on the spring ends prevent the bearing-cases from turning ordinarily; but by prying the spring apart enough to loosen the bearings, they can be turned so as to change the point of greatest wear when desired.

I am aware of the construction shown in Letters Patent No. 275,165, granted to J. E. Donovan, in which anti-friction roller-bearings are applied to a clothes-wringer having C-formed springs formed of wood, and I therefore do not claim, broadly, the application of such bearings to such wringers; but it will be observed that the Donovan device does not employ a roller-bearing case loosely mounted on the roll-shafts and held in seats on the springs by the compressing action of said springs.

What I claim as new is—

1. In a clothes-wringer of the type herein shown, the combination, with the roll-shafts A and C-springs C, of journal-boxes on said shafts, which consist of an integral annular case containing anti-friction rollers, which boxes are held against rotary and lateral movement by the arched ends of said springs.

2. In a clothes-wringer of the type herein shown, the combination, with the roll-shafts A and C-springs C, of roller-bearing cases

loosely mounted on said shafts, which are held against lateral and rotary movement by the compressing action of said springs.

3. In a clothes-wringer of the type herein shown, the combination, with the roll-shafts A, of anti-friction roller-bearing cases on said shafts, and C-springs having at their bearing ends semi-embracing flanged seats C′ for holding said roller-bearing cases against lateral and longitudinal movement.

In testimony whereof I affix my signature in presence of two witnesses.

MELVIN NEWTON LOVELL.

Witnesses:

JNO. K. HALLOCK,

WM. P. HAYES.