

T. E. McDONALD.

Improvement in Clothes Wringers.

No. 124,367.

Patented March 5, 1872.

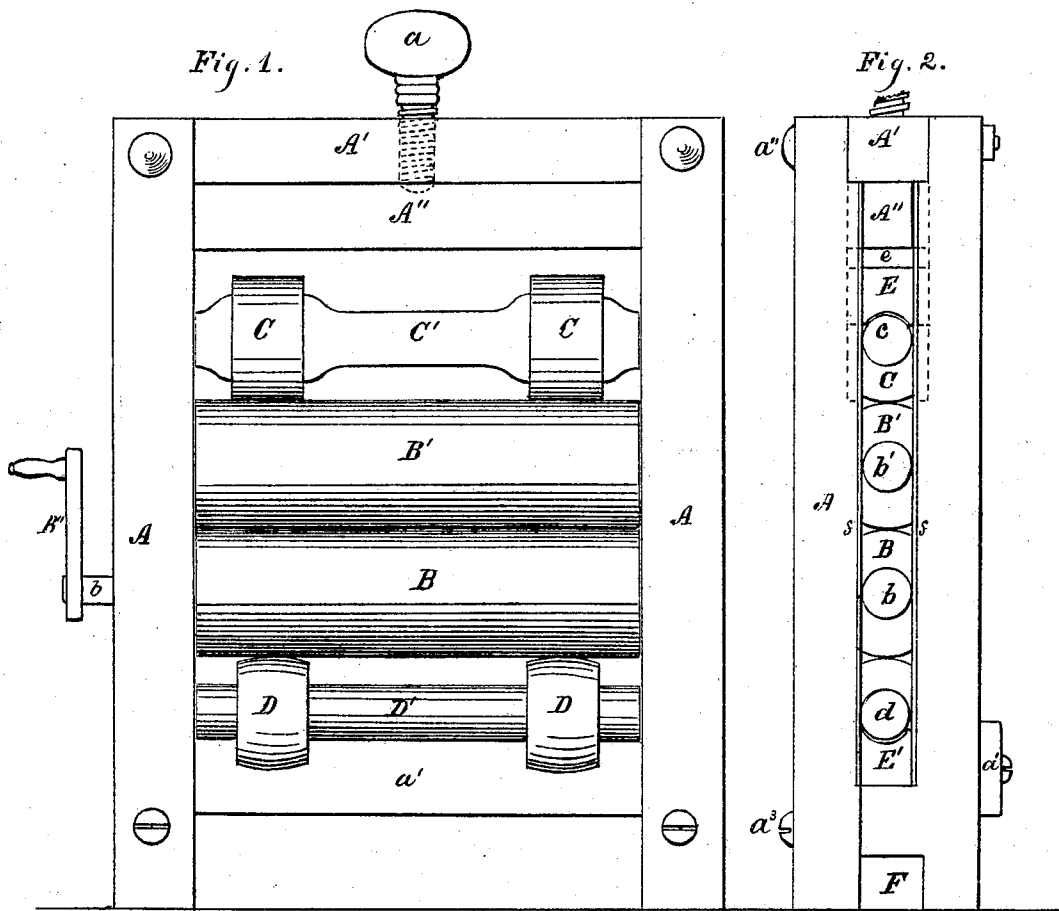
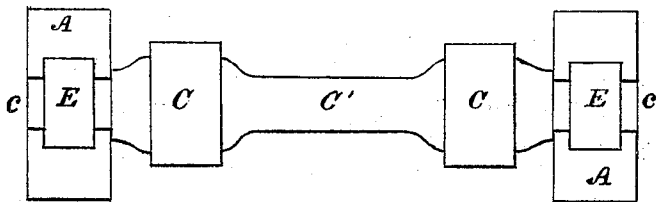


Fig. 3.



Witnesses:

C. S. Whitman
H. A. Daniels

Inventor:

Thomas E. McDonald
By A. Crawford, atty.

UNITED STATES PATENT OFFICE.

THOMAS E. McDONALD, OF TRENTON, NEW JERSEY.

IMPROVEMENT IN CLOTHES-WRINGERS.

Specification forming part of Letters Patent No. 124,367, dated March 5, 1872.

I, THOMAS E. McDONALD, of Trenton, in the county of Mercer, in the State of New Jersey, have made certain Improvements in Machines for Wringing Clothes, of which the following is a specification:

The object of this invention is to improve the wringers now used, so as to do away with the boxes in which the journals of the spindles of the wringer-rolls revolve, and thereby lessen friction in the use of the wringer and cheapen the machine; and it consists in the construction and arrangement of the parts that form the wringer, as will be more fully hereinafter described.

In the drawing, Figure 1 represents a side view of the wringer. Fig. 2, an end view of the same; and Fig. 3 is a horizontal sectional view on line *x x* in Fig. 1.

A A are the upright posts of the machine, each having an upright slot centrally located in the upper part thereof to receive the journals of the wringer-rolls and journals of the supporting and presser-rolls. A' is a horizontal cap, let into the heads of post A and securely bolted therein. A'' is a sliding presser-beam, with tenons at each end that fit into the upright slots in the posts, and bears upon a flexible pad above a half box over the journals of a presser-shaft. *a* is a presser-screw, working in a nut fast in the cap-piece A', and bears upon the presser-beam A'', and by which the wringer-rolls are forced toward each other and the pressure regulated. *a'* is a cross-girt, to support and hold the bottom ends of posts A. B and B' are the usual elastic wringer-rolls, having their journals *b* and *b'* extend into the upright slots in the posts, while the journal at one end of one of the rollers passes through the post and receives a crank-handle, B'', by which the wringer-rolls are revolved. C C are two flexible revolving presser-rolls, fast on the revolving shaft C', placed directly above the wringer-rolls, and have journals *cc* extending into and revolving in the slots in posts A. These rolls C C are preferably made of rubber, the same as the wringer-rolls, and secured around shaft C' in any proper manner and near to each end thereof. D D are the supporting-rollers on revolving shaft D', and placed directly underneath the wringer-rolls. Shaft D' has journals *d*, that extend into and revolve in

the upright slots in posts A, and bear in suitable half boxes under the journals *d*. The supporting-rollers D are generally of wood or any non-elastic material that will stand water without much wear; but if great elasticity is required, or more than can be given through the elastic rollers C in bearing upon the wringer-roll, they may be made of rubber and used in the same manner as though the hard or non-elastic rollers were used as above described. E E are half boxes over the journals of shaft C', which carries the flexible rollers C and slide in grooves in posts A. E' represents one of the half boxes under the journal of shaft D' that carries the supporting-rollers D, and is firm upon the bottom of the slot in post A. *e* is a rubber or other flexible spring pad interposed between the presser-beam A'' and boxes E, and over journals *c* of shaft C' in the slots in posts A. The inner faces of the slots in posts A are preferably faced with sheet metal *f*, against which the journals of the rollers will touch in their revolutions or reciprocations, but hard wood would wear a long time, as there is but little side pressure on the journals of the wringer-rolls against the sides of the slots. F is an open slot at the bottom of the posts, to receive the top of a wash-tub or boiler, and to which the wringer-frame is securely fastened by any of the proper devices for such purpose. The journals of the wringer-rolls B and B' are free to rise or fall in the slots of the posts, and do not bear in boxes, as is usually the case, and the slots act as guides and keep the rolls in their proper place, while the bearing of the wringer-rolls is upon the revolving rollers D, and the pressure is applied to the top or movable roller through the elastic revolving roller C, which can be forced down upon the wringer-rolls by the screw *a* bearing upon the presser-beam A'', and giving any amount of pressure desired.

The flexible rollers C C on shaft C' and the rollers D D on shaft D' may in some instances revolve upon their shafts, and the shafts themselves be stationary. When this is the case, the rollers will have to be supplied with flanges to hold the rubber bands for the flexible rolls, and the solid or non-flexible ones will be wood or metal; but I prefer the construction as first described. The supporting-rollers D D on

shaft D' will alone support and resist the pressure of the wringer-rolls when in operation, and the wringer can be used with only the supporting-rollers D; but it is not so good as when the upper presser-rollers C C are used.

By this construction and arrangement of the supporting and pressure-rollers to the wringer-rolls an easy-working and lasting wringer is produced, doing away with the expensive boxes for the journals of the wringer-rolls to work in as generally used in wringing-machines as heretofore constructed.

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

1. The wringer-rolls B and B', having their journals *b* and *b'* revolving and free to slide in the slots (without journal-boxes) in posts A, in the manner and for the purpose substantially as described.

2. The combination of the wringer-rolls B and B' with the supporting-rollers D and presser-rollers C, when constructed and arranged to operate in the manner substantially as shown.

THOMAS E. McDONALD.

Witnesses:

E. V. MOORE,
RANDOLPH H. MOORE.