J. Critcherson,

Wringer Roll,

No. 34,394. Patented Feb. 11, 1862.

Fig 1.

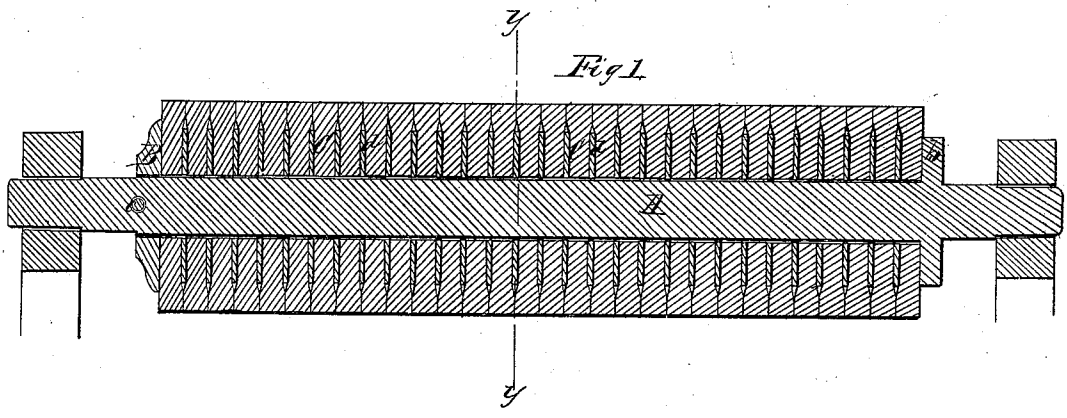
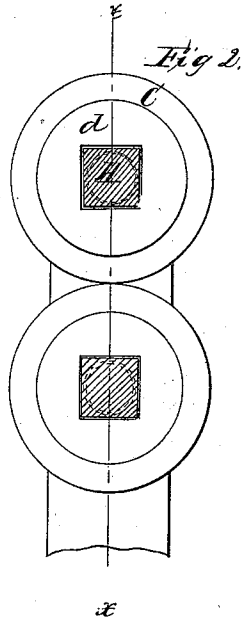


Fig 2.



Witnesses.
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UNITED STATES PATENT OFFICE.

JOHN CRITCHERSON, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND GEO. P. TOWLE.

IMPROVED ROLLER FOR CLOTHES-WRINGERS.

Specification forming part of Letters Patent No. **34,394**, dated February 11, 1862.

To all whom it may concern:

Be it known that I, JOHN CRITCHERSON, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and Improved Roller for Clothes-Wringers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a longitudinal section of my improved roller, the section being taken in the line *x x* of Fig. 2. Fig. 2 is a transverse section of the same, the section being taken in the line *y y* of Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

This improvement relates to that class of clothes-wringers which consist of two flexible or yielding rollers, between which under pressure and in motion the clothes or other articles to be wrung are passed and thereby deprived of their moisture.

The invention consists in making the said rollers of disks of felt, having interposed thin metal disks to give firmness to the roller and to prevent the felt from slipping, the said disks being placed on a polygonal shaft and clamped between a stationary or fixed and a movable collar.

To enable others skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a short shaft, which may be of wrought-iron or steel, having journal-bearings at its ends. On one end of this shaft, inside of the journal-bearing, is a collar *b*, which in the present instance is formed on the shaft, but which may be made separately and afterward attached to the shaft in any suitable manner. The shaft inside of this collar and between it and the journal-bearing on the opposite end of the shaft is made square to receive the disks of felt and metal, which have square holes in them to correspond with the shaft.

B is a movable collar of brass or other suitable metal, which is fitted to have longitudinal movement on the shaft A and serves with the fixed collar *b* to clamp the disks of felt and metal together. This movable collar is secured when in the proper position on the shaft by a pin *c*, which is introduced outside of the collar through a hole passing transversely through the shaft.

C C are disks of felt of which the roller is composed. These disks are of circular form with flat sides and have a square hole made centrally through them to correspond with the shaft upon which they are placed. Placed on the shaft between these disks of felt are thin metal disks *d*, which may be of zinc or of any suitable material to give greater firmness to the roller, and also to give additional security against the disks of felt slipping round on the shaft. These disks are made of smaller diameter than the felt disks to allow the surface of the roller to yield.

The requisite number of felt disks being placed upon the shaft in the manner described to form a roller of the required length, the movable collar B is placed over the end of the same and the felt compressed between it and the fixed collar in any suitable manner, accordingly as a hard or soft roller may be desired. The metal disks embedding themselves in the felt leave the surface of the roller smooth and unbroken. The movable collar is then secured on the shaft by a pin *c*, inserted through a hole in the shaft, as before described.

Instead of the movable collar being secured by a pin, it may have a screw-thread cut in it to fit over a corresponding screw-thread cut on the shaft, in which case the compression of the felt disks may be effected by the screw-thread of the movable collar without resorting to other means, only a metal disk should be placed outside of the felt for the movable collar to work against, instead of allowing it to work against the felt, as it does when the pin is used.

The two rollers which constitute the wringer are made precisely alike, as also are their shafts, with the exception that one end of one shaft is made longer than the other and terminates in a square shank to receive a winch or crank, whereby a rotary motion is given to the rollers, they being arranged in a stand in the usual manner. The clothes to be wrung are passed between these rollers while in motion. The clothes, in consequence of the pressure to which they are subjected, are effectually deprived of most of their moisture as they pass the center of the rollers. The water, be-

ing squeezed out of the felt at the same time, escapes in front of the rollers, while the opposite sides of the rollers, being deprived of all moisture in passing the center, act by suction to extract any water remaining in the clothes. The yielding surface of the rollers allows the clothes to be subjected to an indefinite amount of pressure without liability of injury to the finest fabric.

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

As a new article of manufacture, a roller for clothes-wringers, consisting of disks of felt C, with interposed disks of thin metal *d* arranged on a polygonal shaft A and secured thereon in a compressed form by collars B *b*, the whole operating in the manner and for the purpose substantially as described.

JOHN CRITCHERSON.

Witnesses:
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