

E. G. W. BARTLETT.

Improvement in Clothes-Wringers.

No. 115,150.

Patented May 23, 1871.

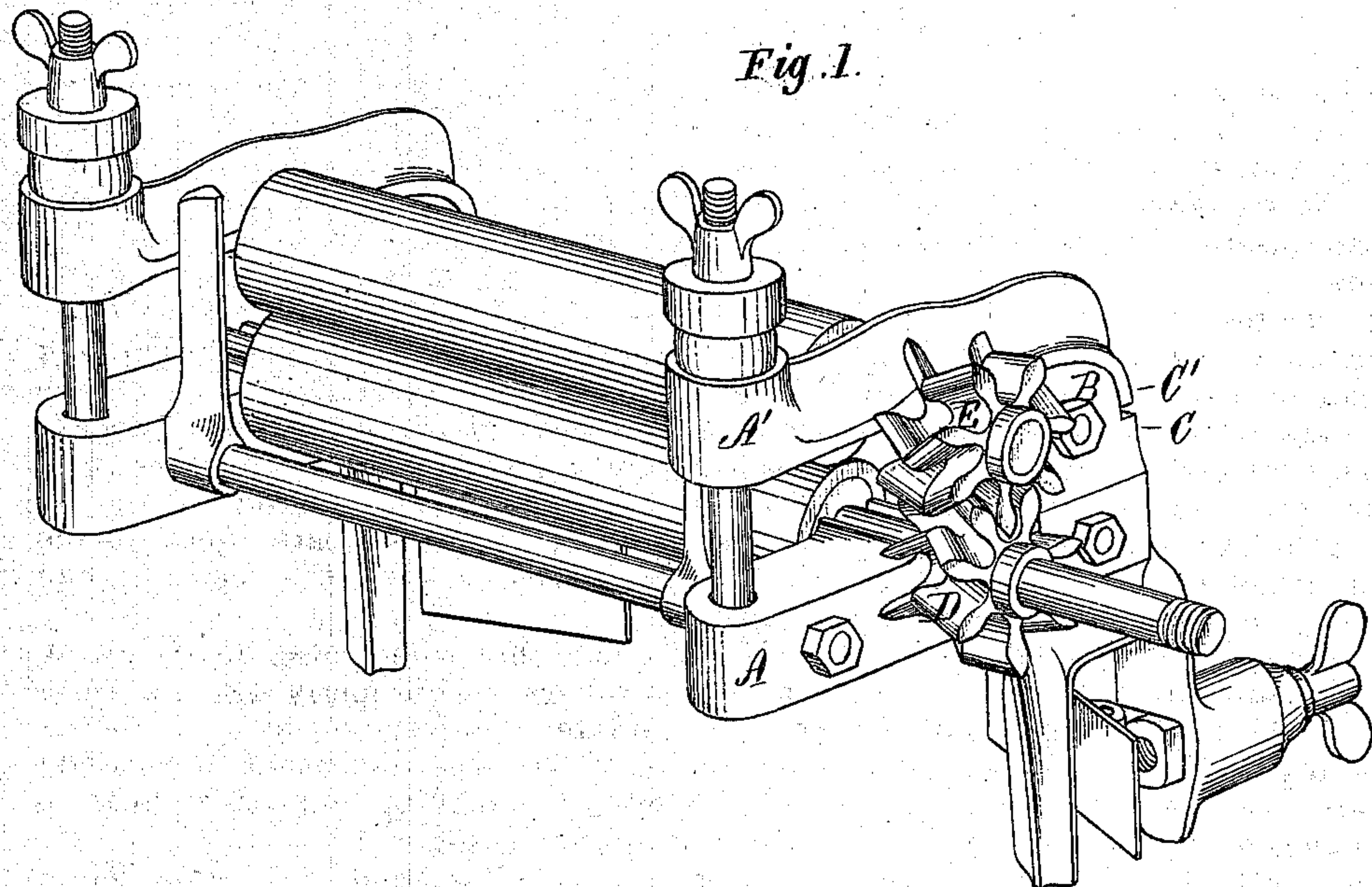


Fig. 2.

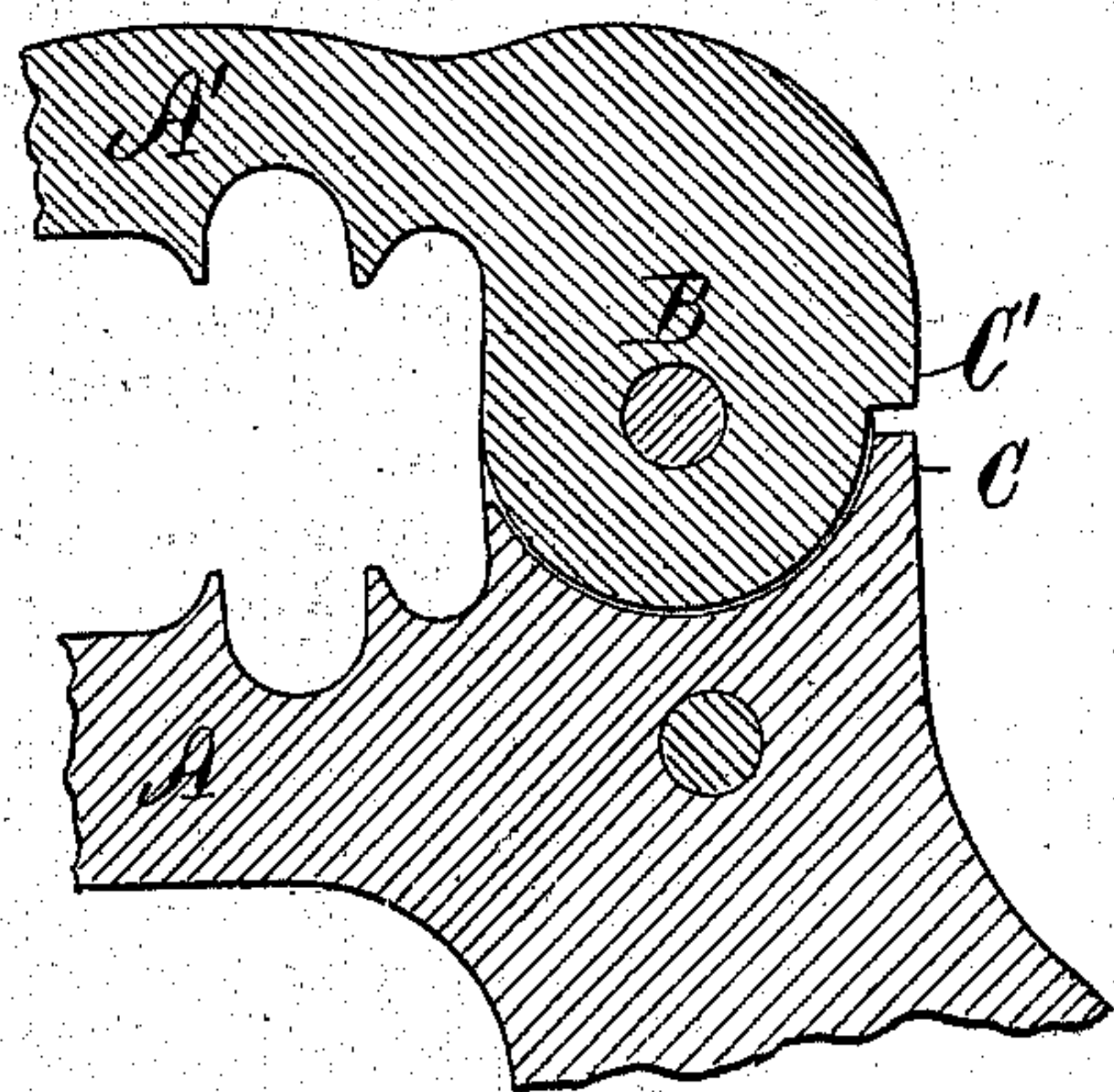
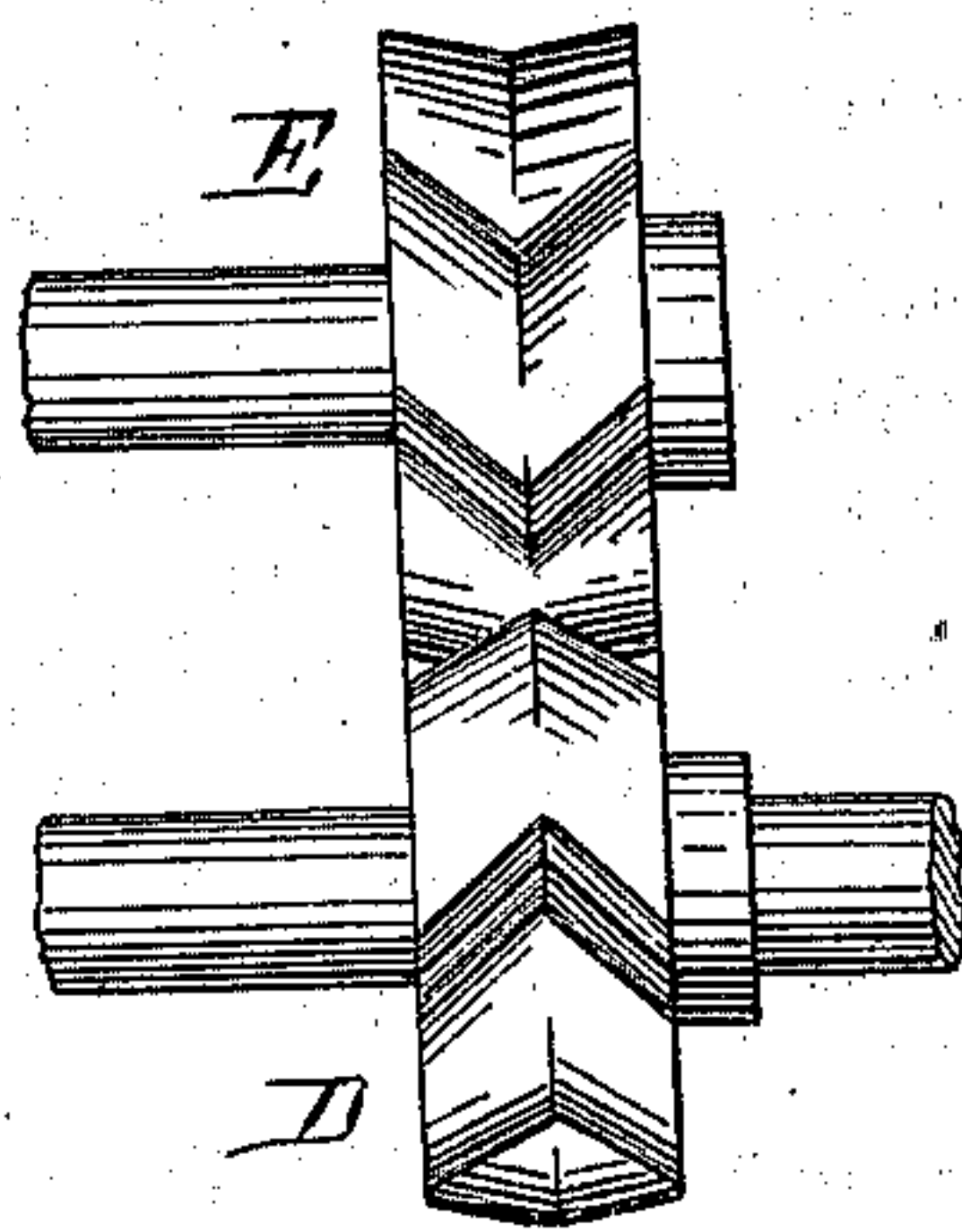


Fig. 3.



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UNITED STATES PATENT OFFICE.

ELBRIDGE G. W. BARTLETT, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN CLOTHES-WRINGERS.

Specification forming part of Letters Patent No. 115,150, dated May 23, 1871.

To all whom it may concern:

Be it known that I, ELBRIDGE G. W. BARTLETT, of the city and county of Providence, in the State of Rhode Island, have invented certain new and useful Improvements in Clothes-Wringers.

My invention relates in part to that general class of machines which have their upper and lower rollers respectively attached at right angles to bars which are hinged at one of their ends, and provided with screw-clamps at their opposite ends, and partly to an improvement in gearing applicable to any wringer. My invention consists, first, in providing the bars with a stop-joint at their hinged ends, thereby limiting the opening capacity of the bars and preventing the gears from separating while in operation; and, secondly, in combining with the rollers driving and driven gears, the teeth of which have corresponding concave and convex surfaces, the rear of each tooth of said gears having corresponding convex and concave surfaces, thus constituting what might be termed "double spiral" gears. By their use with wringing-rolls a practically continuous and uniform connection is always maintained, and all lateral movements of one roll independent of the other are practically obviated; and I do hereby declare that the following specification, taken in connection with the drawing furnished and forming a part of the same, is a true, clear, and exact description thereof.

Referring to the drawing, Figure 1 represents in perspective a wringer with my improvements. Fig. 2 represents in vertical section one of the hinged joints. Fig. 3 represents in front view one of my improved gears.

A and A' are the bars on which the wringing-rollers are mounted. The lower one is fixed or stationary, while the upper one vibrates vertically on a hinged joint. B is the hinged joint. At the rear end of the bars A and A', a short distance from the hinged pin, are two shoulders, C and C', so located with relation to the hinge-pin that they come in contact when the bars are opened or the rollers separated to a certain degree, and then positively prevent any further separation of rollers, bars, or gearing. D is the driving-

gear, attached to the shaft of the lower roller. E is the driven gear attached to the upper roller, in turn attached to the upper bar A'. The front of each tooth of the gear D is concave; the rear of each tooth of the gear E is convex. These two surfaces correspond, and are the bearing-faces when the power is applied to the shaft of the lower roll. The rear of the teeth of gear D and the front of each tooth of the gear E are convex and concave respectively, and correspond in character with the bearing-surfaces. In order to secure proper working of these gears there should be liberal spaces between the teeth at their bases.

It is obvious that when these gears are attached to rollers and properly engaged there can be no lateral movement of one roller independent of the other, and that the connection between the driving and driven gears is continuous and regular.

It is obvious, also, that the rotary movement of the gears, constructed as described, may be reversed at will, and that their operation will not vary.

The terms "bearing-faces," "front," and "rear" are only used in the description to relate to the teeth of the gears to which power is applied, as shown and described.

I am aware that gears having concavo-convex teeth, substantially as described, are not new, and they are therefore only claimed by me in the combination described.

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

1. The shoulders C and C' on the rear ends of the bars A and A', arranged at such a distance from and in such relation to the hinge-joint B that they will prevent by their coming in contact any undesirable separation of the bars, the rollers, or the gears of a wringing-machine, substantially as described.

2. In combination with wringing-rollers mounted in suitable standards, the concavo-convex toothed gears D and E, substantially as described.

ELBRIDGE G. W. BARTLETT.

Witnesses:

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