

THOMAS E. McDONALD.

## Improvement in Spindles for Clothes Wringers.

No. 119,235.

Patented Sep. 26, 1871.

Fig. 1.

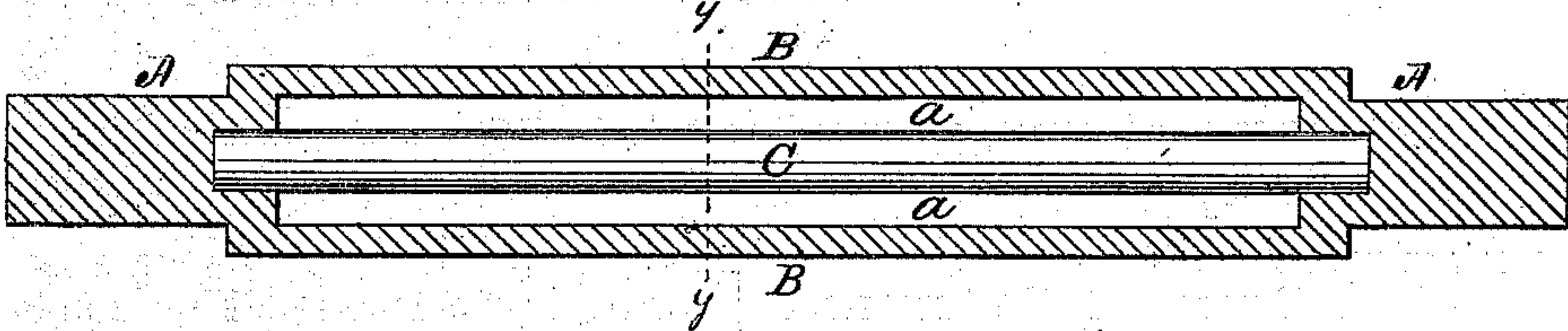


Fig. 2.

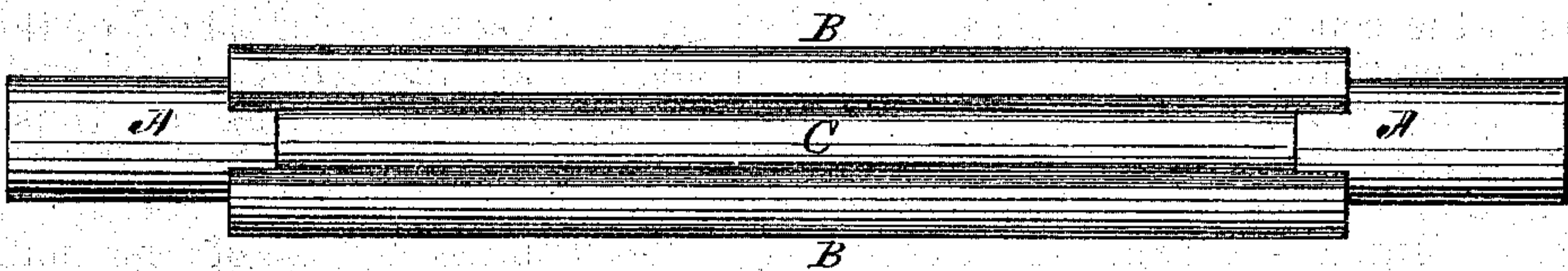


Fig. 3.

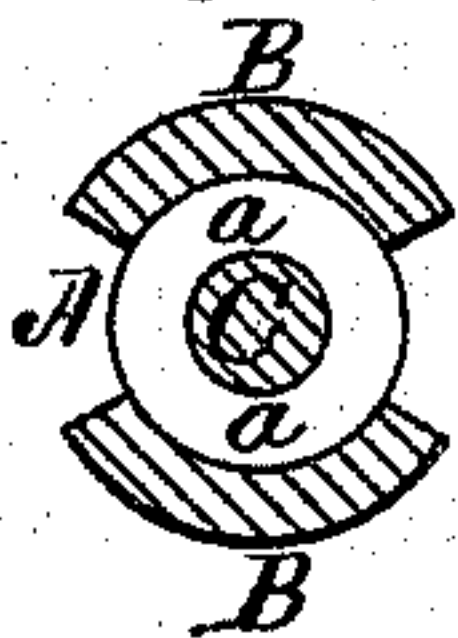


Fig. 4.

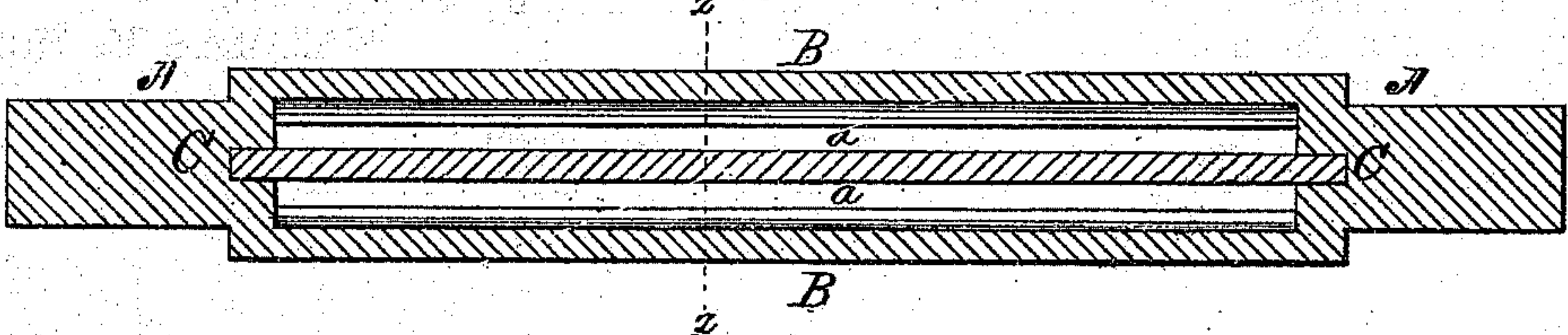
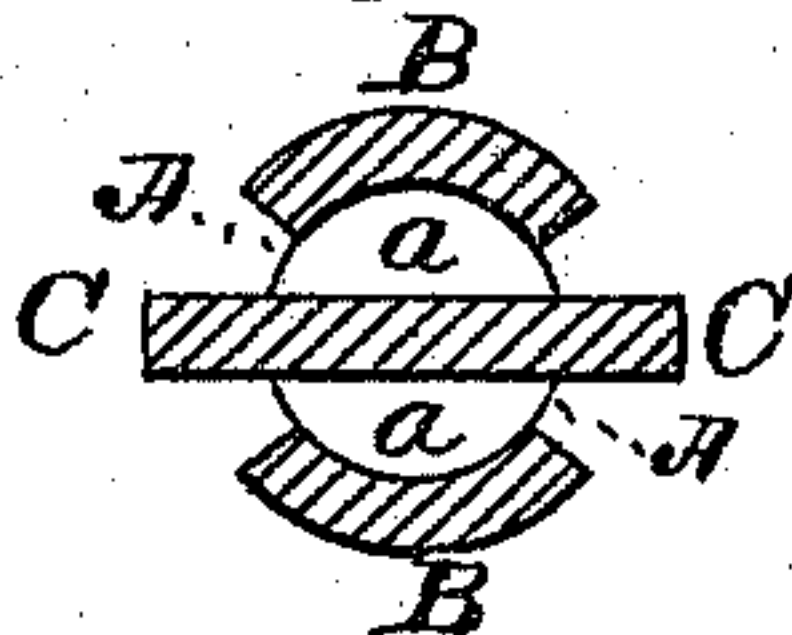


Fig. 5.



Witnesses:

J. C. Brecht.  
Geo. Poulton

Inventor:

Thomas E. McDonald  
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# UNITED STATES PATENT OFFICE.

THOMAS E. McDONALD, OF TRENTON, NEW JERSEY.

## IMPROVEMENT IN SPINDLES FOR CLOTHES-WRINGER ROLLS.

Specification forming part of Letters Patent No. 119,235, dated September 26, 1871.

*To all whom it may concern:*

Be it known that I, THOMAS E. McDONALD, of Trenton, in the county of Mercer in the State of New Jersey, have made certain Improvements in Spindles for Clothes-Wringer Rolls, of which the following is a specification:

The object of this invention is to produce an improved spindle for clothes-wringer rolls; and it consists in the construction of the spindle, as is more fully hereinafter set forth.

In the drawing, Figure 1 is a longitudinal sectional view of the spindle. Fig. 2 is a side view of same. Fig. 3 is a transverse sectional view at *y y* of Fig. 1. Fig. 4 is a longitudinal sectional view, and Fig. 5 is a transverse sectional view at *z z* of Fig. 4, and are modifications of Figs. 1, 2, and 3.

A A represent the journals of the spindles, made from round metal bars, of the proper size and length. B B are metal bars, convex on their outer and concave on their inner sides to fit upon the metal forming the journals, of the proper width and thickness, and of the length to lap upon and be welded or brazed to opposite sides of each of the journals A, but not wide enough to surround the journals, but leave a space of one-sixth, more or less, of the inner diameter of said bars between them and on each opposite side of the journals A. C is a center bar or rod of metal, of round iron or other metal, of about one-half the diameter of the journals, and is inserted and fastened into the inner ends of the

journals at their centers, as seen in Fig. 1, by boring or otherwise making a hole of the proper size to receive and hold it and leave a space, *a*, around and between it and the bars B; or, instead of the center bar C being made of round metal, it may be made of a flat bar, and project a little outside of the diameter of bars B on their convex sides, as seen in Figs. 4 and 5, as this form would give the center bar C a hold of the rubber outside of the diameter of bars B, and their hold of the rubber forming the roll, thus acting upon more of the material of the roll than if made with the round center.

The spindle may be of cast malleable iron, if preferred. Any known method of attaching the rubber firmly to the spindle when thus formed may be adopted, as the manner of attaching the rubber to the spindle is no part of this invention.

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

The clothes-wringer roll-spindle above described, consisting of the journals A, metal bars B, and center bar C, united to the journals A, and leaving the open space *a*, in the manner and for the purpose set forth.

THOMAS E. McDONALD.

Witnesses:

RANDOLPH H. MOORE,  
EDWIN A. MOORE.