

(No Model.)

C. K. BRADFORD.

BUFFING ROLL FOR BOOTS OR SHOES.

No. 334,162.

Patented Jan. 12, 1886.

Fig. 1.

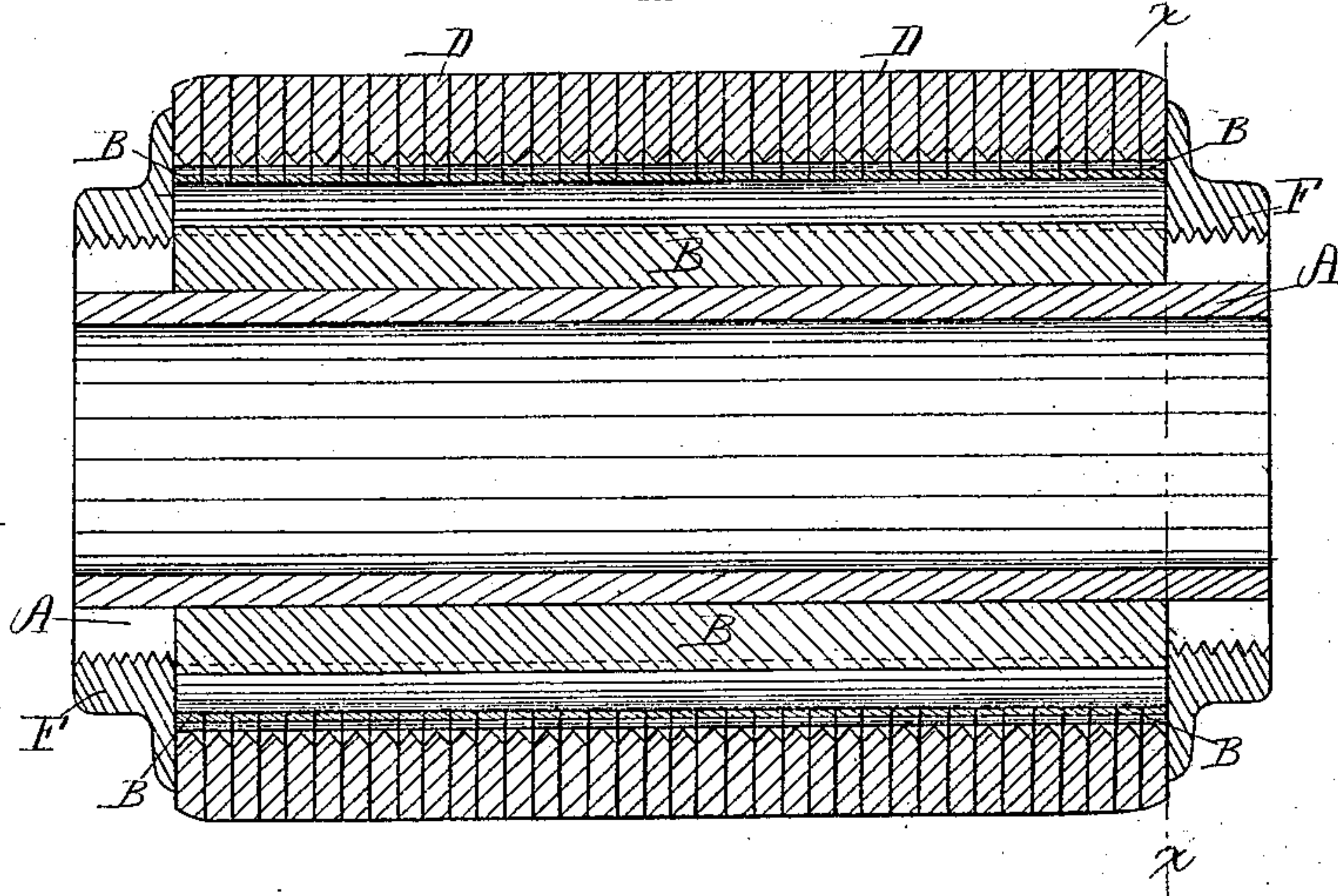


Fig. 2.

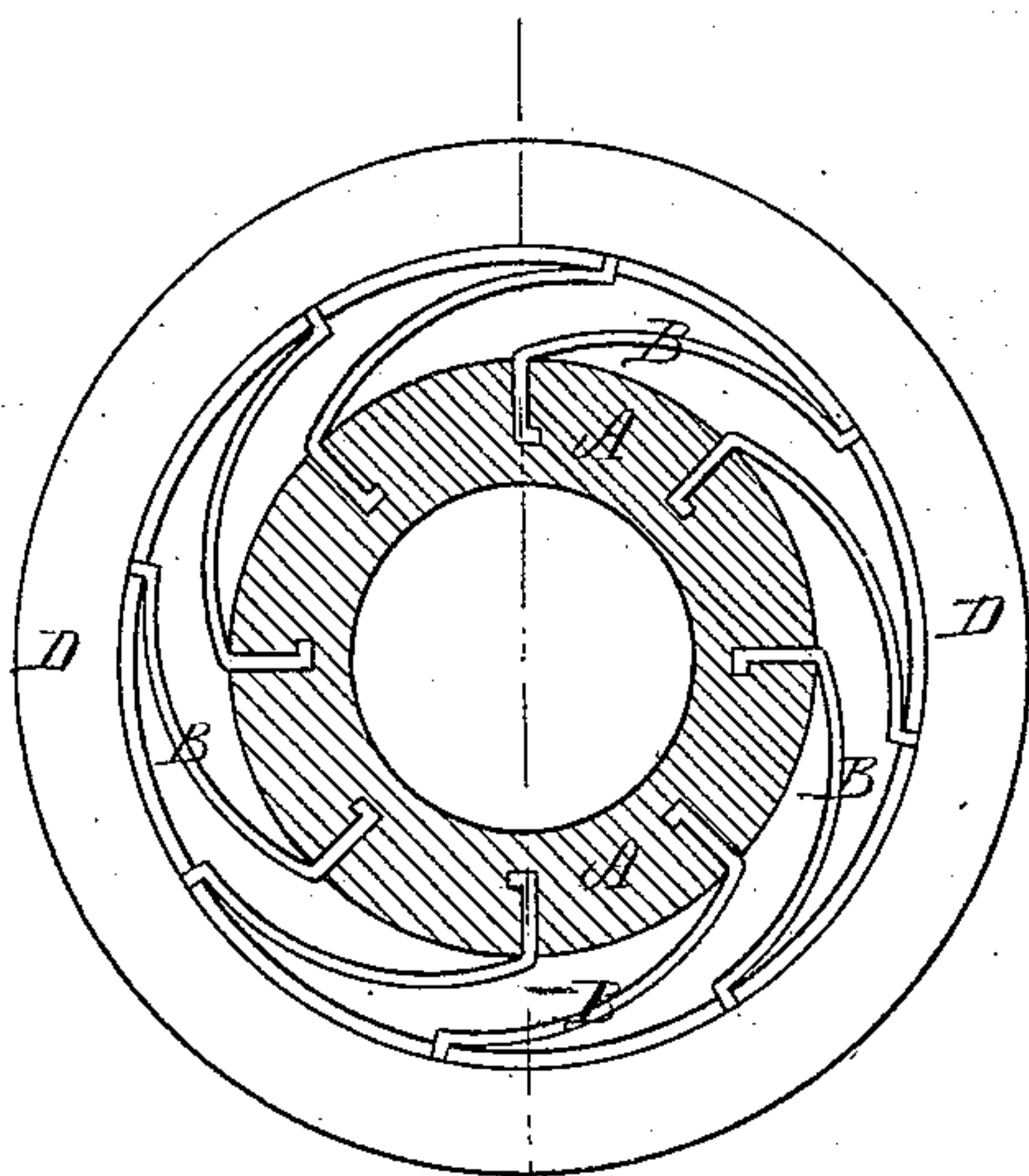
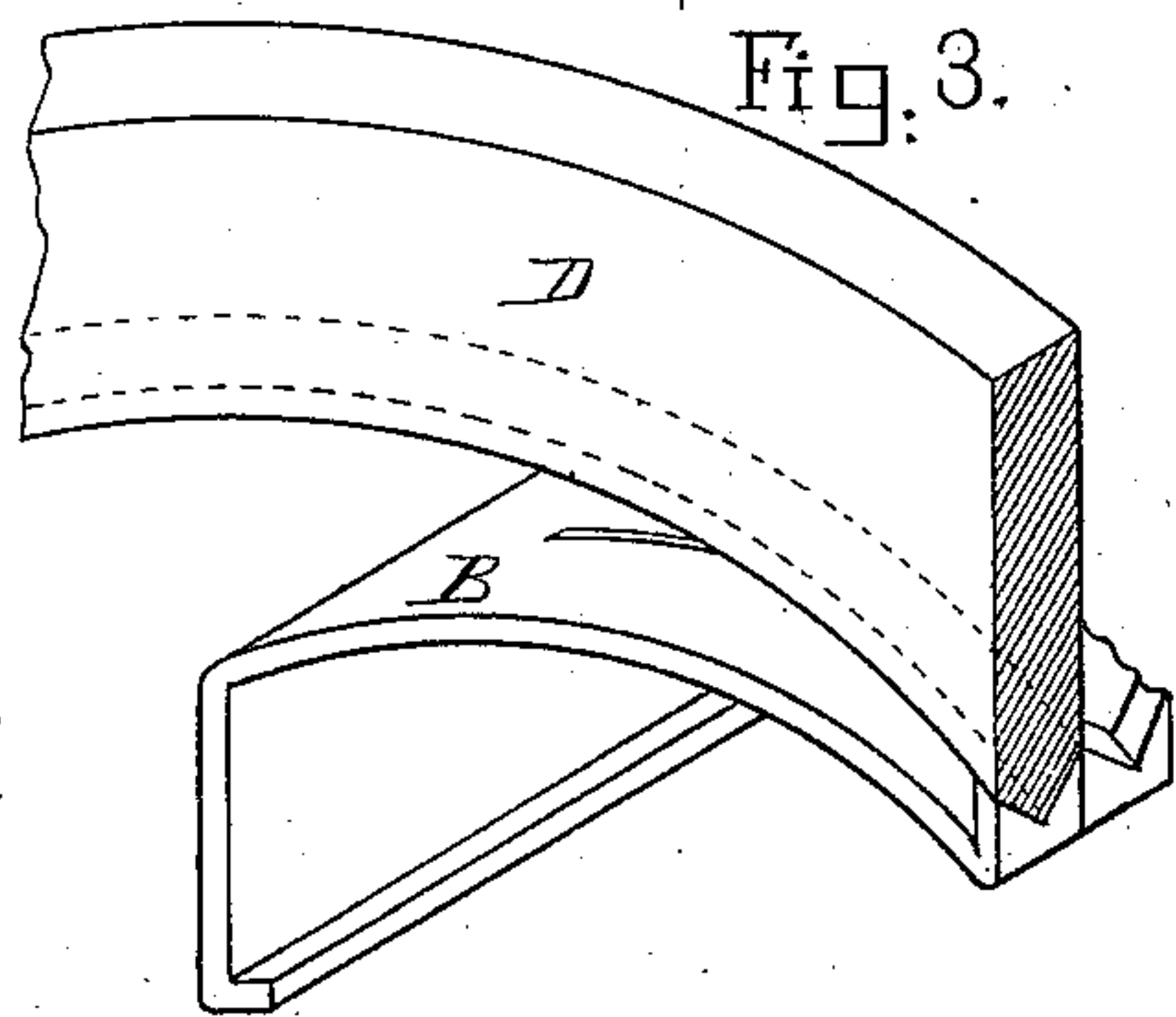


Fig. 3.



Witnesses.

Lauritz W. Möller.

John R. Snow.

Inventor.

Charles K. Bradford
by his attorney,

J. E. Maynard

UNITED STATES PATENT OFFICE.

CHARLES K. BRADFORD, OF LYNNFIELD, ASSIGNOR TO GEORGE H. P. FLAGG, TRUSTEE, OF BOSTON, MASSACHUSETTS.

BUFFING-ROLL FOR BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 334,162, dated January 12, 1886.

Application filed March 28, 1884. Serial No. 125,889. (No model.)

To all whom it may concern:

Be it known that I, CHARLES K. BRADFORD, of Lynnfield, in the county of Essex and State of Massachusetts, have invented a new and useful Roll for Machines for Buffing Boot and Shoe Soles, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a longitudinal section. Fig. 2 is a sectional end view on line *x x* of Fig. 1. Fig. 3 is a detail enlarged.

In the drawings, A represents the central portion of the roll, which, for a certain class of machines for buffing the soles of boots and shoes, is best made as a shell or hollow cylinder of metal, grooved, as shown, to receive the springs B. On these springs are a series of rings, D, arranged, as shown, between the two end pieces, F F. The rings D are preferably made of metal. These rings together make up a hollow cylinder, and constitute the yielding portion or cushion of the roll, and all that is essential is, that they should be able to yield within certain limits while revolving rapidly with the core A, my invention consisting in a roll whose cushion or yielding part is a hollow cylinder of an internal diameter materially larger than the rigid central part of the roll, which does not yield.

Heretofore in rolls of this class a cushion of felt, rubber, or the like has been used; and the main purpose of my invention is to do away with the use of such a cushion and get the required elasticity by means of rings, each so mounted that it can yield with reference to the axis of the roll.

It will be obvious from inspection of Fig. 2 that various means may be used for mounting the rings D so that they will be normally concentric with the core A of the roll, and yet readily yield to pressure; but when the rings D

are numerous and thin, as shown in the drawings—which show the best form of my new roll—I prefer to mount each ring on a series of springs, B, and these springs are most conveniently made by bending a sheet of steel into the form shown in outline in Fig. 2, and then slitting this piece of steel so as to form a tooth or spring for each ring, although obviously one tooth or a separate spring may support more than one ring, two or more rings on each spring being substantially the equivalent of a thicker ring.

When it is desired that the yielding cylinder or cushion made up of the rings D shall substantially fit a surface curved as is the sole of a shoe, the rings should be about one-eighth of an inch thick; but for other work they may be made thicker, for, as will be clear, my invention is applicable generally, and not limited to use for abrading the bottoms of soles.

The roll shown in the drawings is designed for use with an abrasive belt, and to be revolved by the belt in a manner too well known to need description.

I prefer radial springs in this class of rolls; but in some cases springs which are substantially parallel with the axis of the roll may be used.

My roll may be used with the sheath or cover commonly used with rolls cushioned with felt or without a cover.

What I claim as my invention is—

The roll above described, consisting of the core A, springs B, and rings D, arranged substantially as shown, the interior diameter of the rings being such that the rings form a yielding cushion.

CHAS. K. BRADFORD.

Witnesses:

J. E. MAYNADIER,
JOHN R. SNOW.