

ELIZA D. MURFEY.

Improvement in Material for Packing and Bearings.

No. 121,804.

Patented Dec. 12, 1871.

Fig. 1.

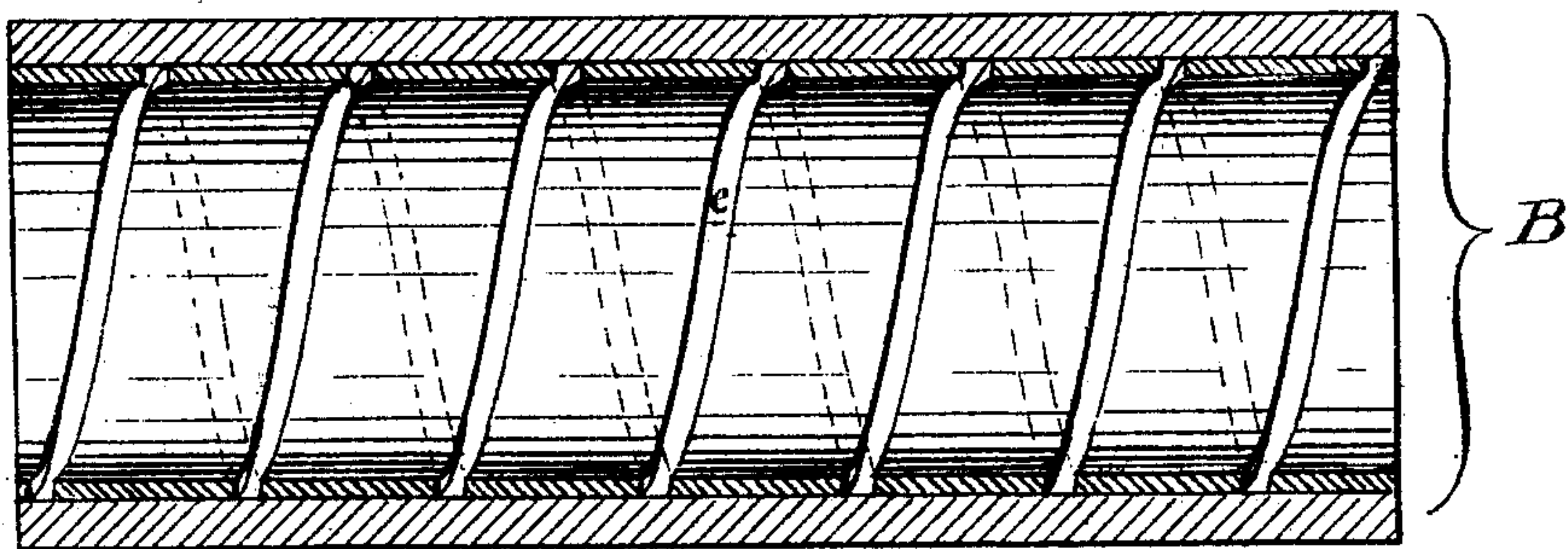


Fig. 2.

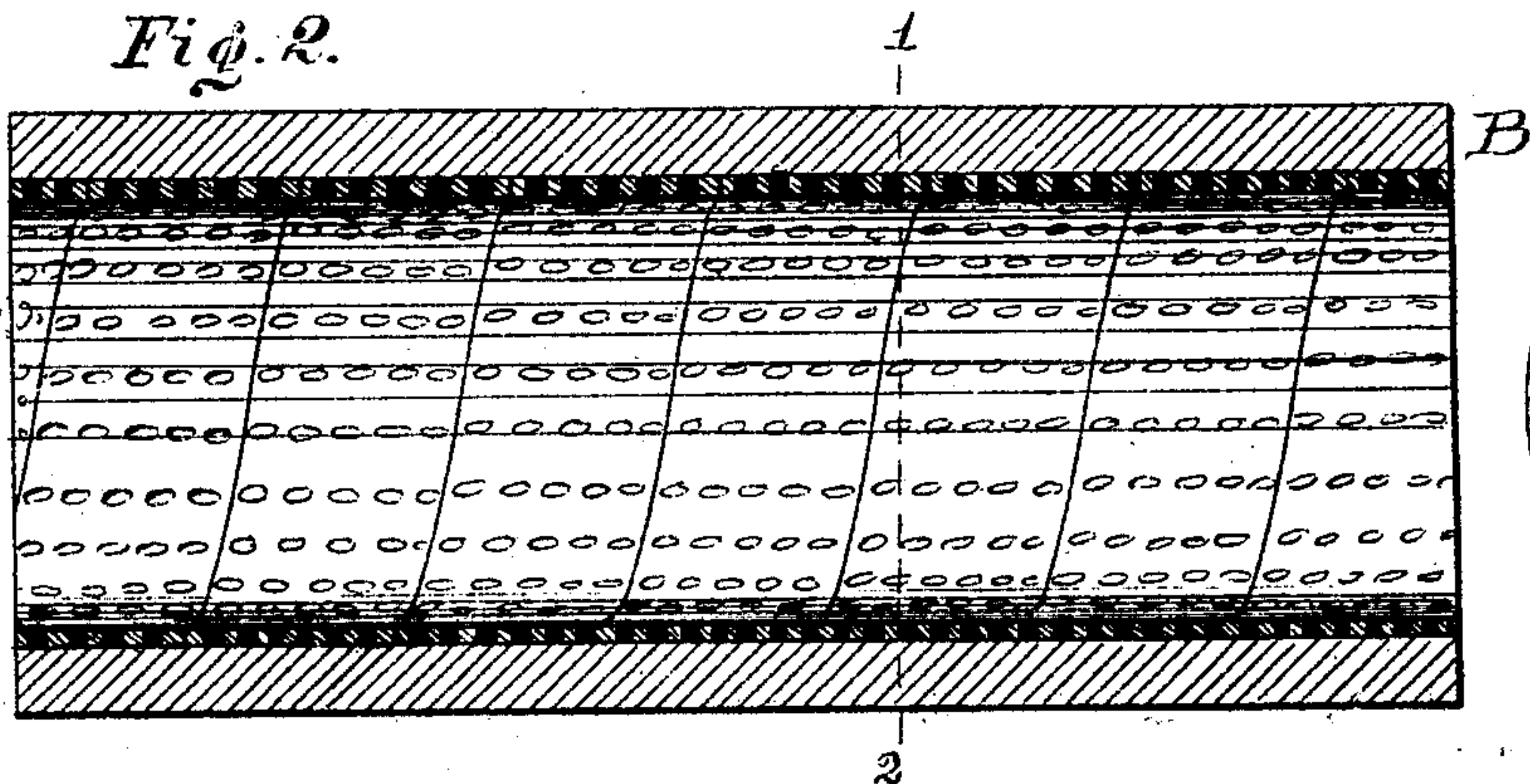


Fig. 3.

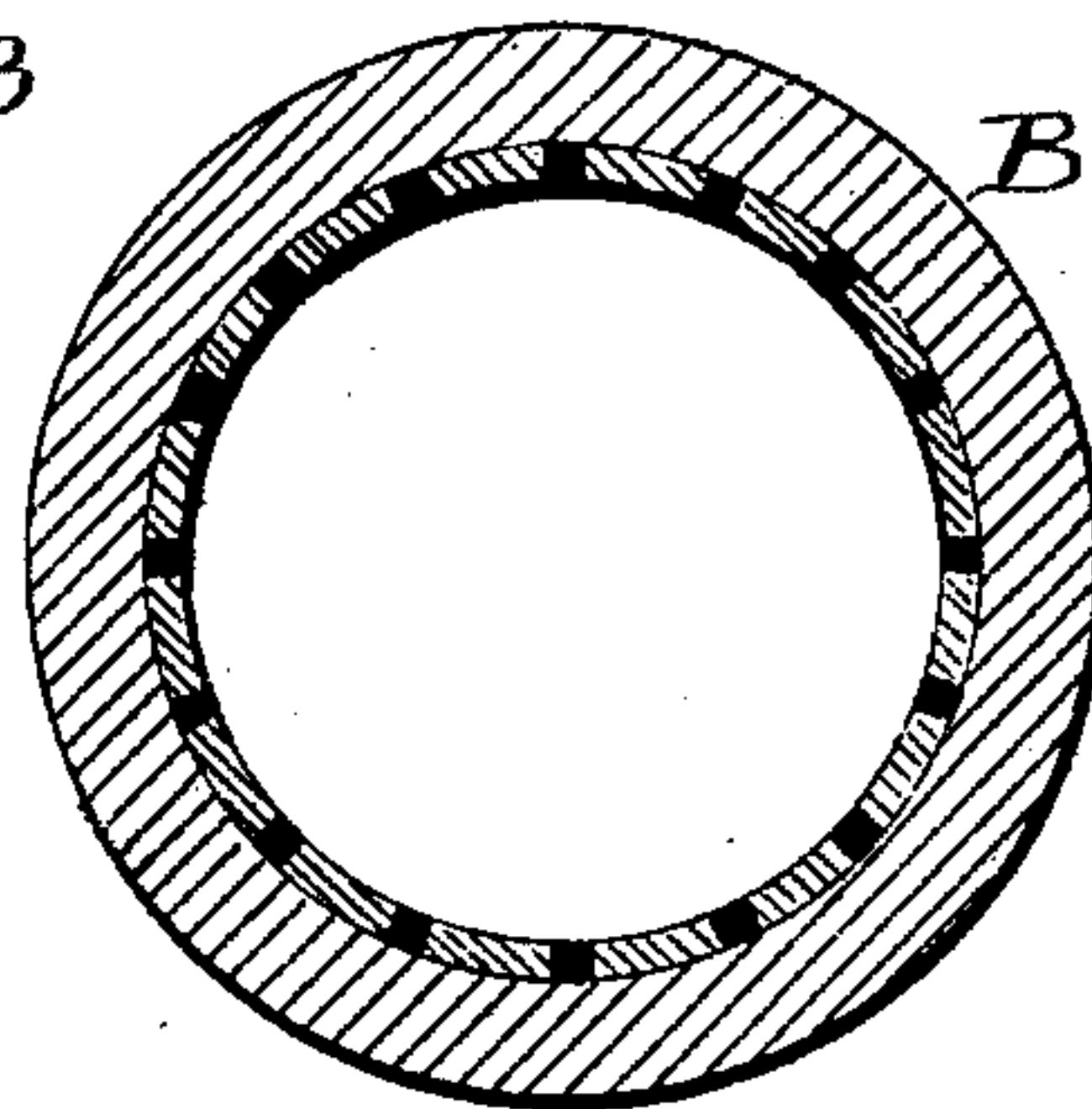
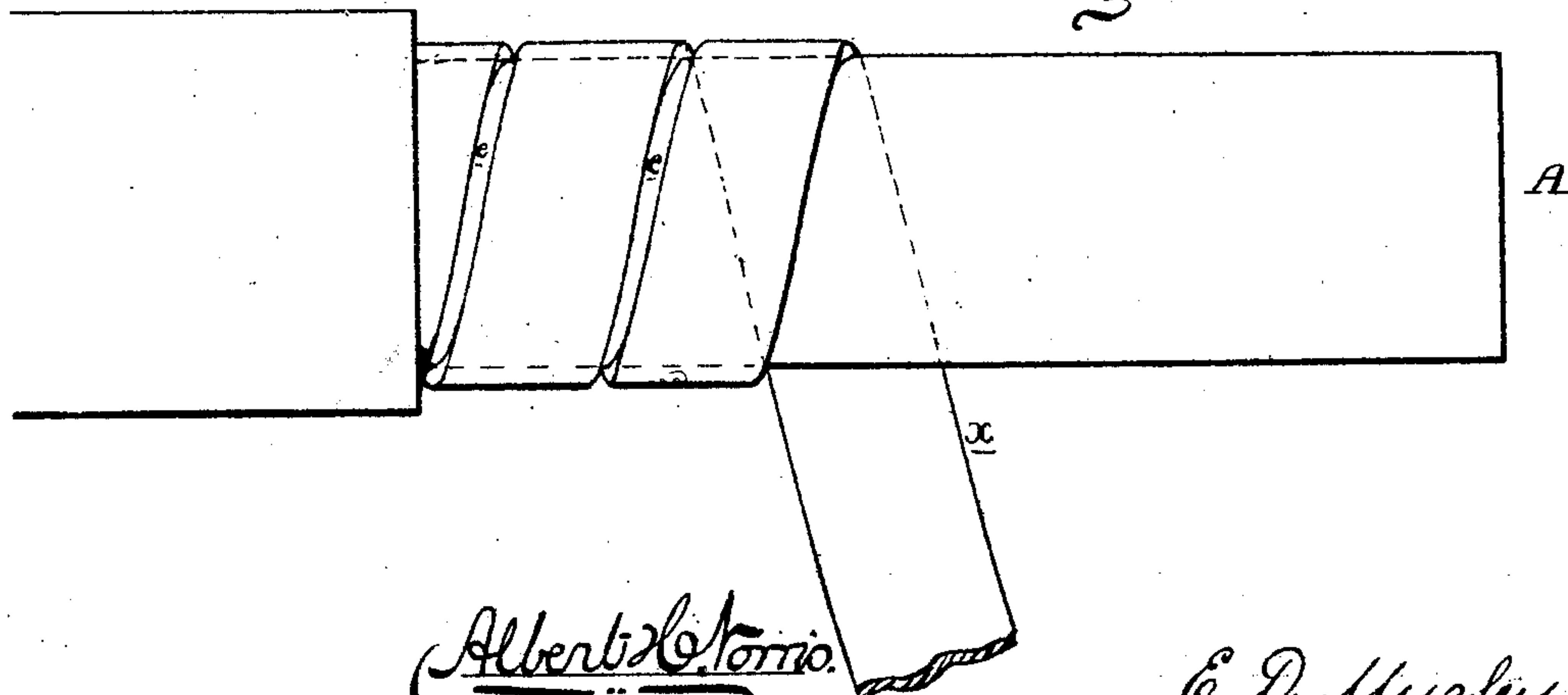


Fig. 4.



Witnesses.

Albert H. Torrio.
Thos. Foster

E. D. Murfey
By her attorneys
Howson & How

UNITED STATES PATENT OFFICE.

ELIZA D. MURFEY, OF NEW YORK, N. Y.

IMPROVEMENT IN JOURNAL-BEARINGS.

Specification forming part of Letters Patent No. 121,804, dated December 12, 1871.

To all whom it may concern:

Be it known that I, ELIZA D. MURFEY, of New York, county of New York, State of New York, have invented an Improvement in Journal-Bearings, of which the following is a specification:

My improved bearing consists of a tube of paper or equivalent material impregnated or coated with a suitable lubricant, and constructed as fully described hereafter, so as to insure a continual supply of lubricant to the journal and the production of an efficient bearing at a moderate cost.

In the accompanying drawing, Figure 1 is a longitudinal section of my improved bearing; Fig. 2, a longitudinal section of a modification; Fig. 3, a transverse section on the line 1 2, Fig. 2; Fig. 4, a diagram illustrating the manner of making the bearing.

A strip, *x*, of paper or other suitable material, the thickness of which depends upon the character of the bearing to be made, is wound spirally upon a mandrel, *A*, as shown in Fig. 4, care being taken that the layer in direct contact with the surface of the mandrel shall be so applied as to leave a spiral space, *c*, of uniform width. Upon the first layer subsequent layers are laid, either spirally or otherwise, with their edges in contact, so as to form a continuous tube, *B*, with an internal spiral groove, *e*, Fig. 1. The paper or other material, either before or after being brought to a tubular form, may be impregnated with any suitable lubricating powder or composition, and gum-size or other material may be applied to the strip to cause the adhesion of the layers; although in most instances the lubricant will also act as a cement. The internal spiral groove forms a receptacle for the retention of a portion of the lu-

bricant, which keeps the journal well lubricated and when the bearing is in the form of a bolster, or is a lining for a bolster, it is so arranged that the revolution of the spindle will tend to carry the lubricant up the groove, by which means the loss of much lubricant is avoided. The internal spiral groove may be formed by slightly overlapping the edges of the spiral strip in winding it on the mandrel, or the edges may lie close together, and the tube may be perforated throughout its whole extent, forming recesses which are filled with lubricant prior to the application of an external covering of papers. (See Figs. 2 and 3.) The packing may be perforated after being formed into a tube, or the strip *x* may be perforated before being applied to the mandrel.

I claim—

1. A journal-bearing consisting of a strip of paper or its equivalent wound spirally and impregnated, as set forth.

2. A bearing of impregnated paper or its equivalent, having an internal groove, *e*, for the purpose specified.

3. A bearing of paper or its equivalent, having internal depressions or recesses, as and for the purpose set forth.

4. The combination, with the said perforated bearing, of an outer covering of paper or its equivalent.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

E. D. MURFEY.

Witnesses:

THOMAS PRUDEN,
HENRY McMANUS.

(87)