

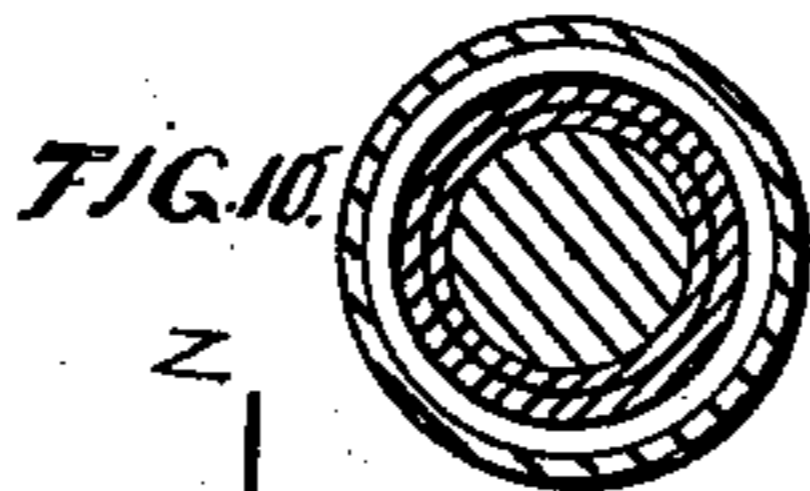
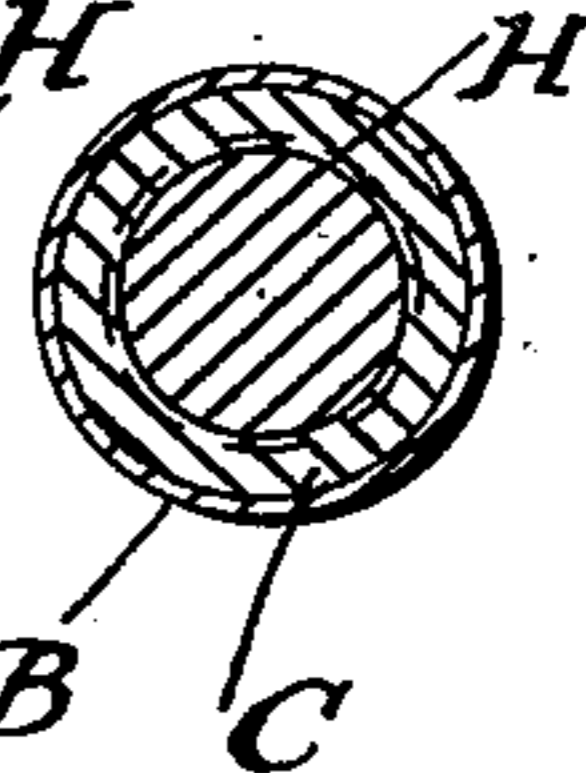
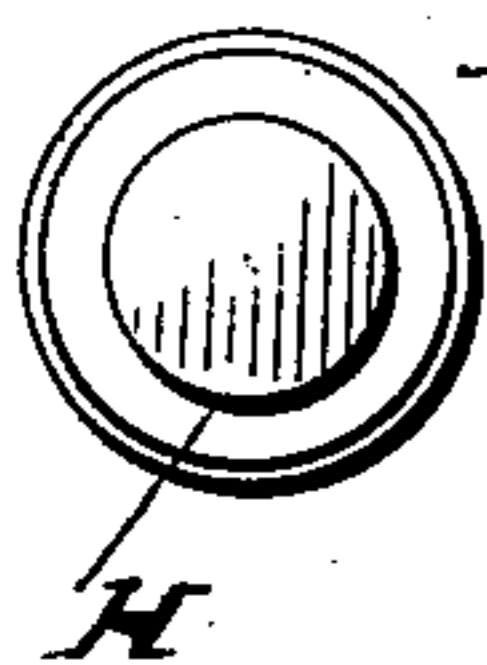
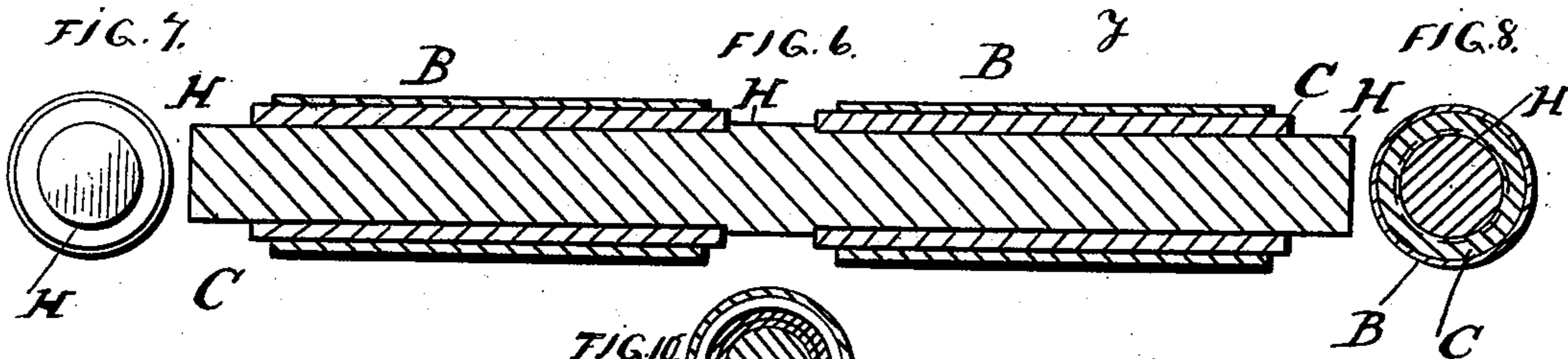
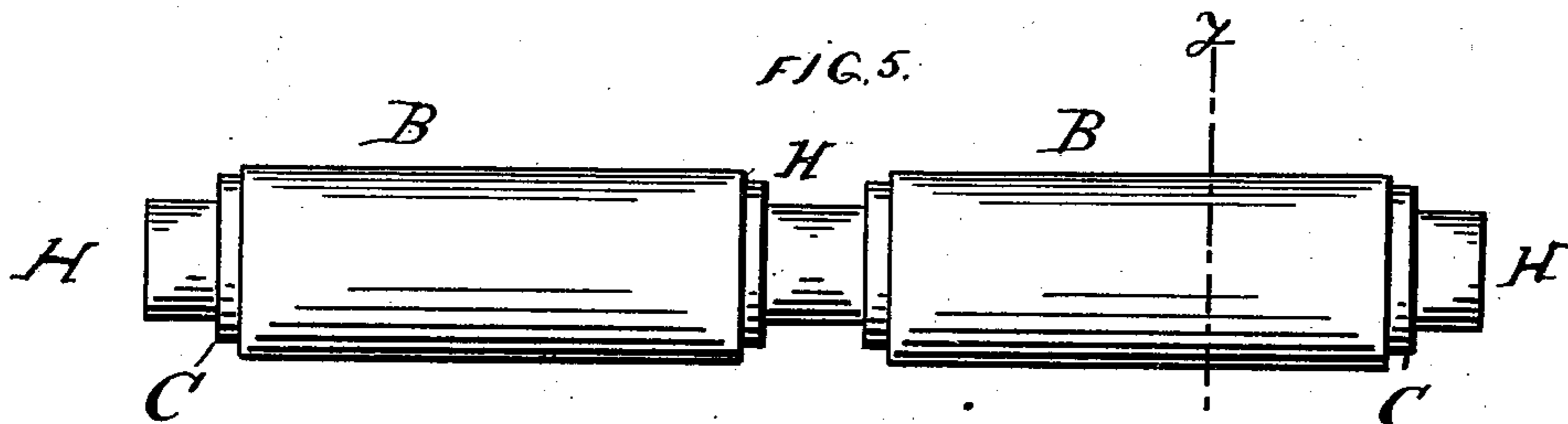
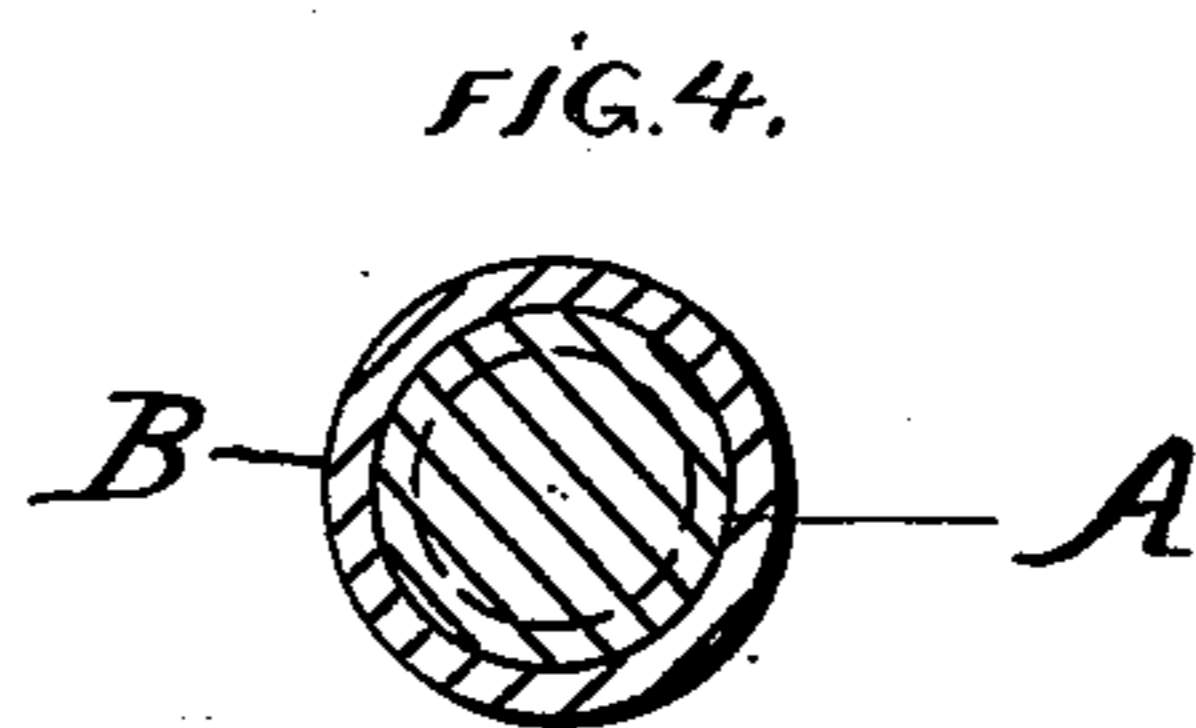
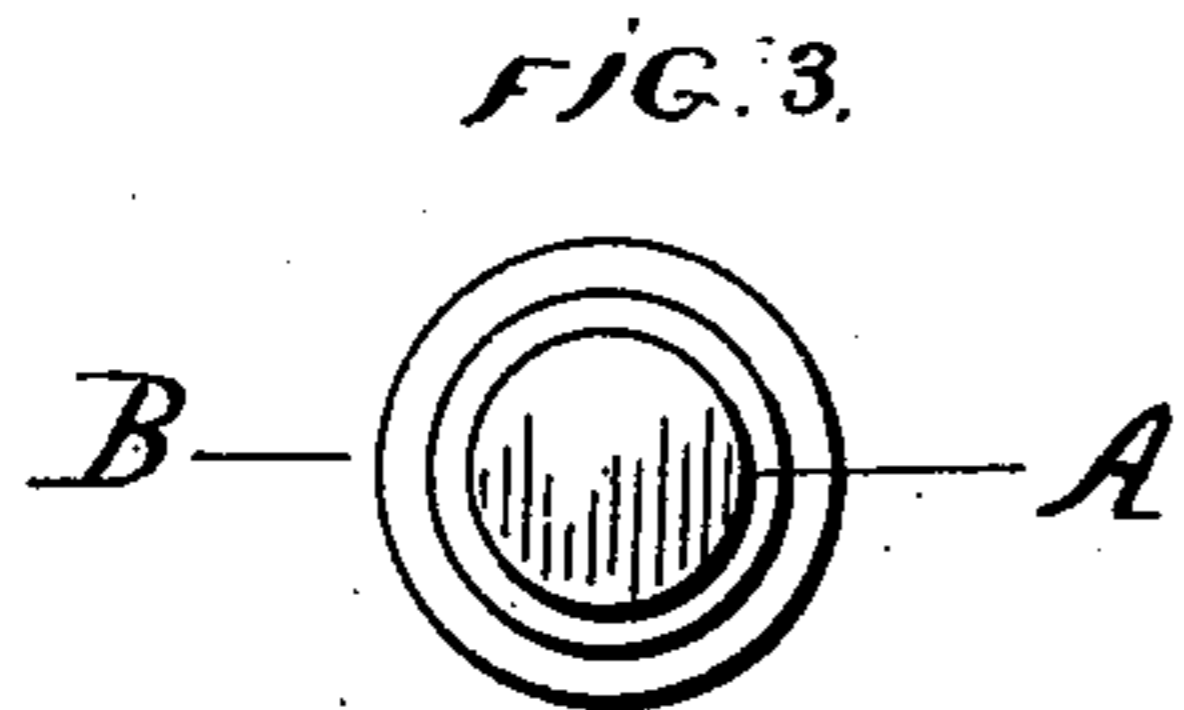
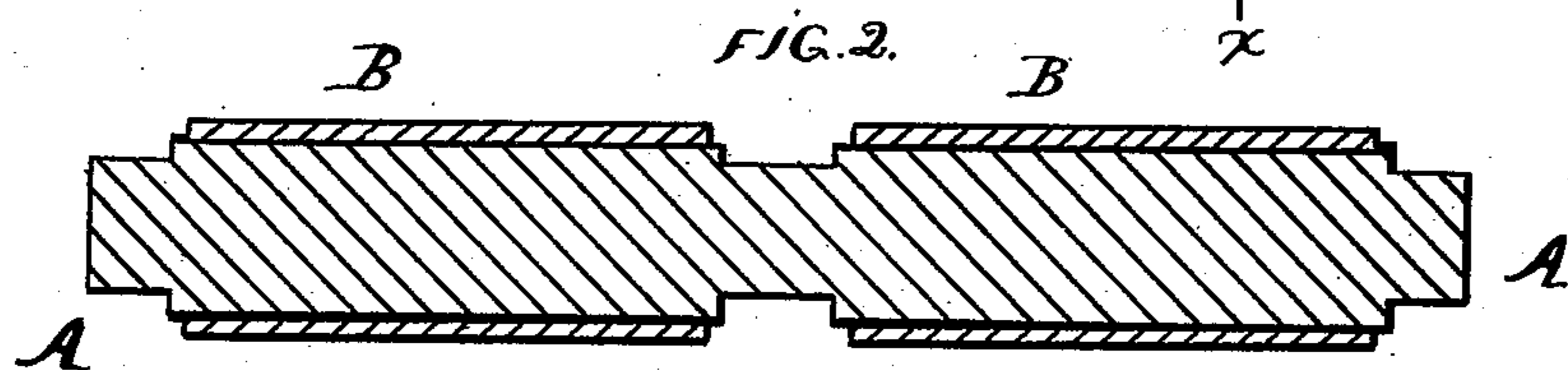
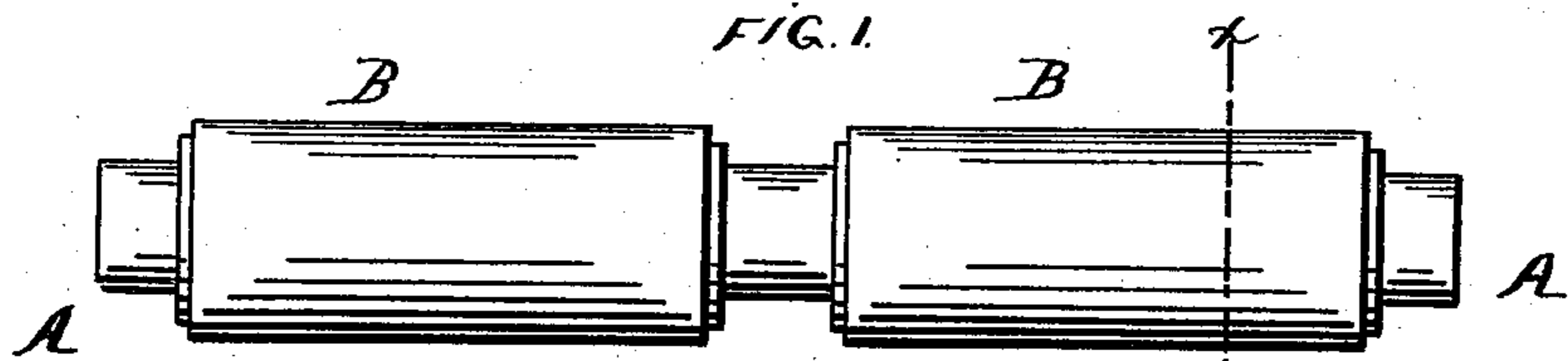
(Model.)

T. B. DUNGAN.

COVERING FOR TOP ROLLS OF SPINNING MACHINES.

No. 352,911.

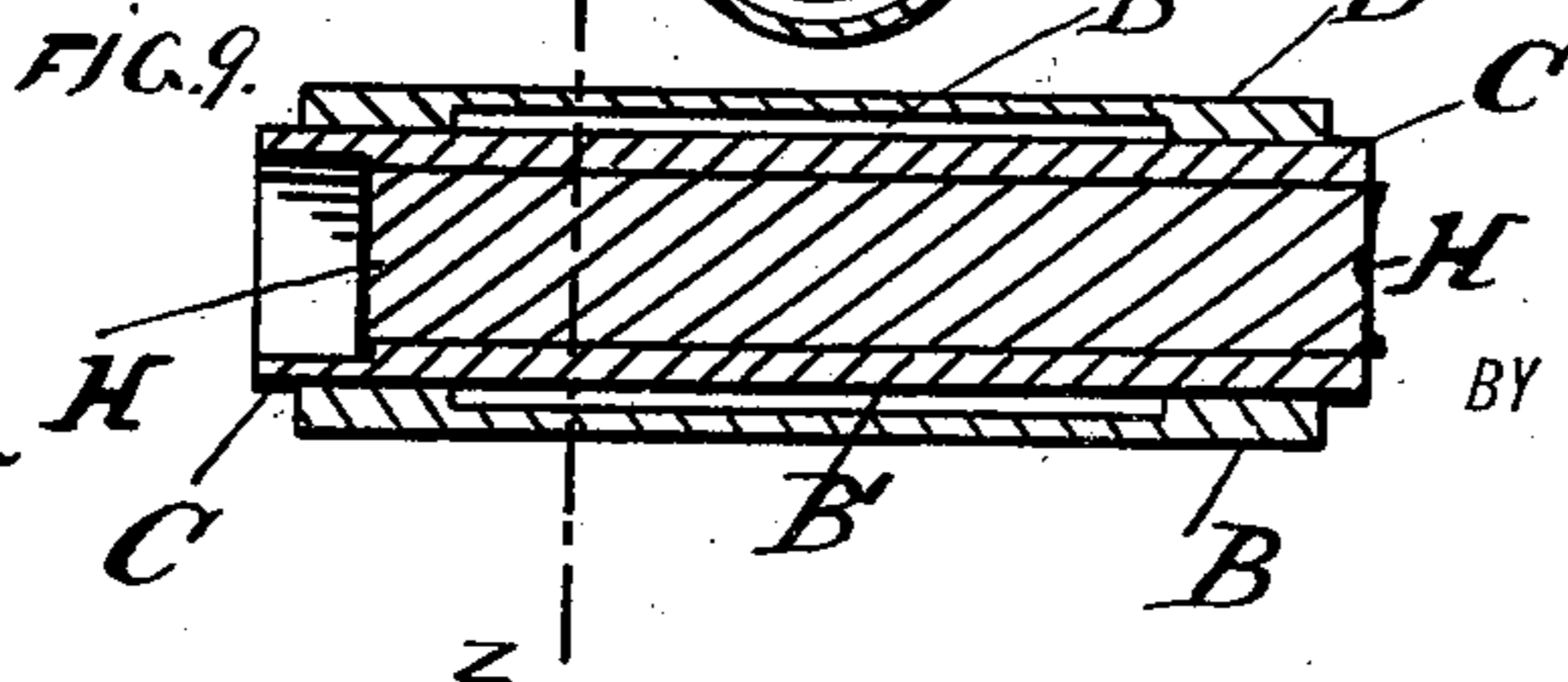
Patented Nov. 23, 1886.



WITNESSES:

J. T. Kewson  
Jacob P. Detweiler

FIG. 9.



INVENTOR:

Thomas B. Dungan

BY

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ATTORNEY

# UNITED STATES PATENT OFFICE.

THOMAS B. DUNGAN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF  
ONE-HALF TO JACOB P. DETWILER, OF SAME PLACE.

## COVERING FOR TOP ROLLS OF SPINNING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 352,911, dated November 23, 1886.

Application filed June 26, 1886. Serial No. 206,321. (Model.)

*To all whom it may concern:*

Be it known that I, THOMAS B. DUNGAN, a citizen of the United States, residing at Frankford, Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Improvement in Coverings for Top Rolls of Spinning-Machines, of which the following is a full, clear, and exact description of the nature thereof, sufficient to enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawings, making part of this specification.

Now, the object of my invention is to produce a cheap, practical, and durable covering for what are known in machinery for spinning cotton, wool, &c., as the "top" rolls or rollers, as a substitute for leather covering; and my invention consists in a covering for drawing-rolls composed of a thin cylindrical seamless wooden shell or hollow sleeve, which may be secured in any well-known manner upon the outside of a metallic-shell roller or solid roll in substantially the same manner and occupying the same relative position as that of the leather covering at present and heretofore in use.

My invention also consists in the peculiar construction of the shell or sleeve; and it also consists in a drawing-roll provided on its outer surface with a covering composed of the aforesaid shell or sleeve.

In the sheet of drawings annexed, Figure 1 is a side view of one kind of a spinning-roller that is used upon the top, having integrally-joined solid cores having solid trunnions, showing my improved covering placed thereon. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is an end view thereof. Fig. 4 is a cross-section on line *xx* of Fig. 1. Fig. 5 is a side view of a spinning-roll used also on the top, and is constructed with a metallic sleeve which revolves upon a solid shaft, and shows my improved covering placed thereon. Fig. 6 is a longitudinal vertical section of the same. Fig. 7 is an end view thereof. Fig. 8 is a cross-section of Fig. 5 on line *yy*. Fig. 9 is a longitudinal vertical section of a modified form of covering shown applied

to what is known as a "shell roller." Fig. 10 is a cross-section on line *zz* of the same.

Similar letters refer to like parts in the several views.

Referring to the drawings, A represents what is known to the art as a "solid trunnioned roller," and B designates the wooden shell or hollow sleeve-covering for the same.

C in the drawings refers to the metallic sleeve, which revolves loosely upon the solid core or shaft H, and having secured upon the said metallic cylinder or hollow sleeve a similar wooden cylindrical covering, B.

As hereinbefore stated, the object sought to be covered by my invention is to entirely dispense with that form or mode of covering now and heretofore in use, in which a covering of loosely-woven cloth is first cemented to the outside of the cylindrical metallic shell or solid trunnioned roller, and a thin tube of leather forced tightly over the same, in a manner well known to those skilled in the art of what is known as "roller-covering."

By substituting the wooden shell or tube for the cloth and leather, greater efficiency is secured in the manufacture especially of cotton and woolen yarns.

The use of wood in the manner shown will enable the same to be exactly fitted to the parallel face of what is known as the "fluted roller," so that in the manufacture of yarns upon yarn-spinning machines a "lumpy" or an uneven product is entirely prevented, and the same is spun regularly throughout.

I prefer to construct my wooden shell or sleeve of such a kind of wood that does not present any well-defined line of fiber, and such as will readily receive a very smooth and polished face, and, besides, possess an elastic and flexible nature, to insure as much adaptation as possible to the face of the fluted roller which revolves it in the spinning of yarn.

In Figs. 9 and 10, respectively, I have illustrated a modification in the construction of the wooden shell or sleeve B, and shown the same applied to a hollow roller, the outer face of which roller would have a smooth surface the same as in the solid roller; but the said wooden shell or sleeve B is shown bored, or by some

manner well known hollowed out, at B', in which case, if desirable, I may insure more elasticity to the operating-face of the wooden shell when in contact with the fluted roller in drawing the yarn.

I am aware that prior to my invention the solid bodies of spinning-rolls have been constructed of wood, and also that such rolls have been covered with cork. My invention resides, essentially, in making the covering of an ordinary roll of a thin seamless tube or shell of wood.

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

1. As a new article of manufacture, a covering for drawing-rolls, consisting of a thin seamless tube of wood, substantially as described.

2. As a new article of manufacture, a cov-

ering for drawing-rolls, consisting of a thin seamless tube of wood hollowed out between its ends, substantially as described.

3. The combination, with a drawing-roll, of a covering composed of a seamless sleeve formed of wood, substantially as described, and for the purposes set forth.

4. The combination, with a drawing-roll, of a covering composed of a seamless sleeve formed of wood, the inner side of said sleeve being hollowed out, substantially as described, and for the purposes set forth.

In testimony that I claim the foregoing as my invention I have subscribed my name in the presence of two witnesses.

THOMAS B. DUNGAN.

Witnesses:

LEWIS F. BROUS,

JESSE F. KREWSER.