

(No Model.)

L. HENKLE.
LAMP.

2 Sheets—Sheet 1.

No. 435,377.

Patented Aug. 26, 1890.

Fig. I.

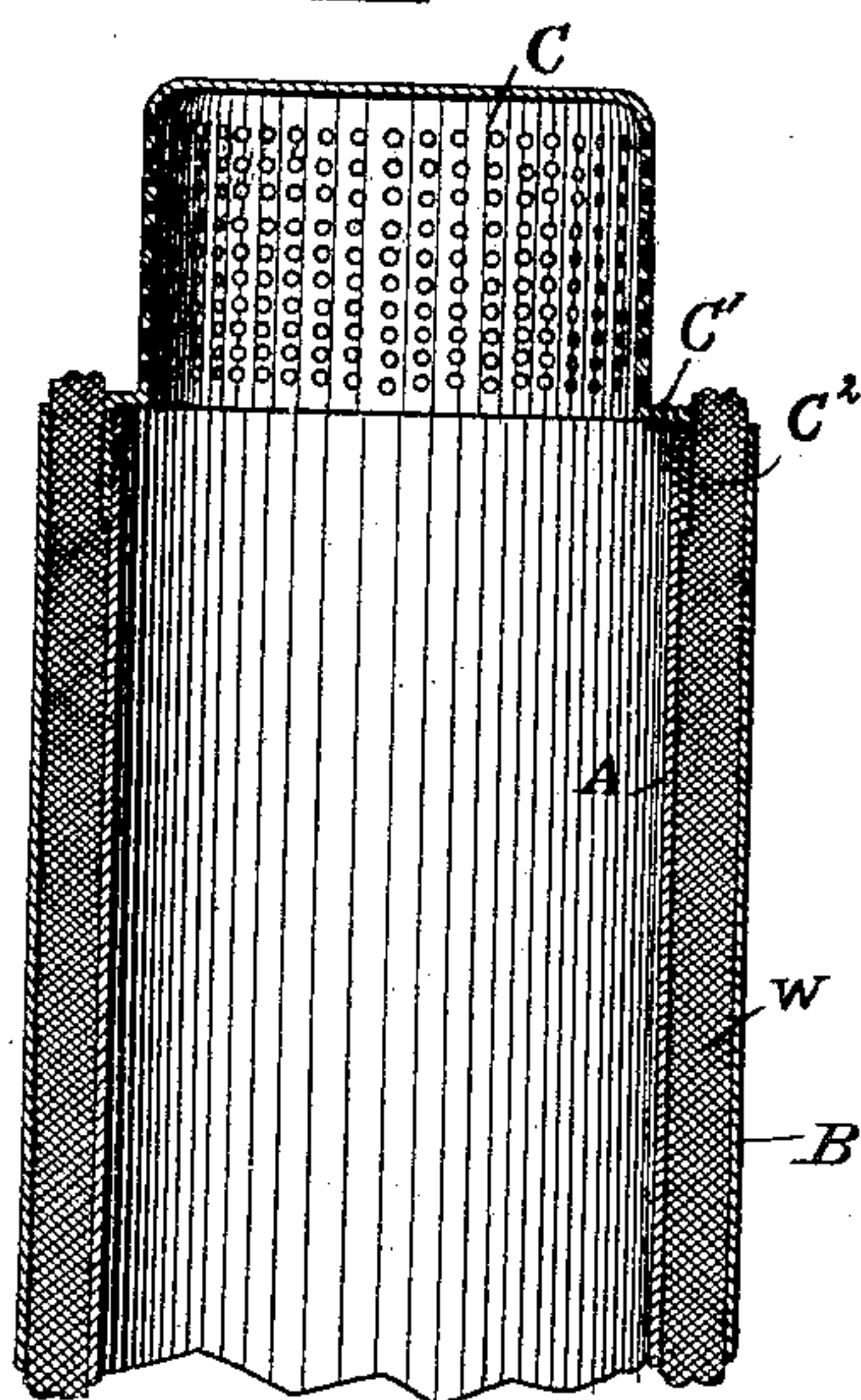


Fig. II.

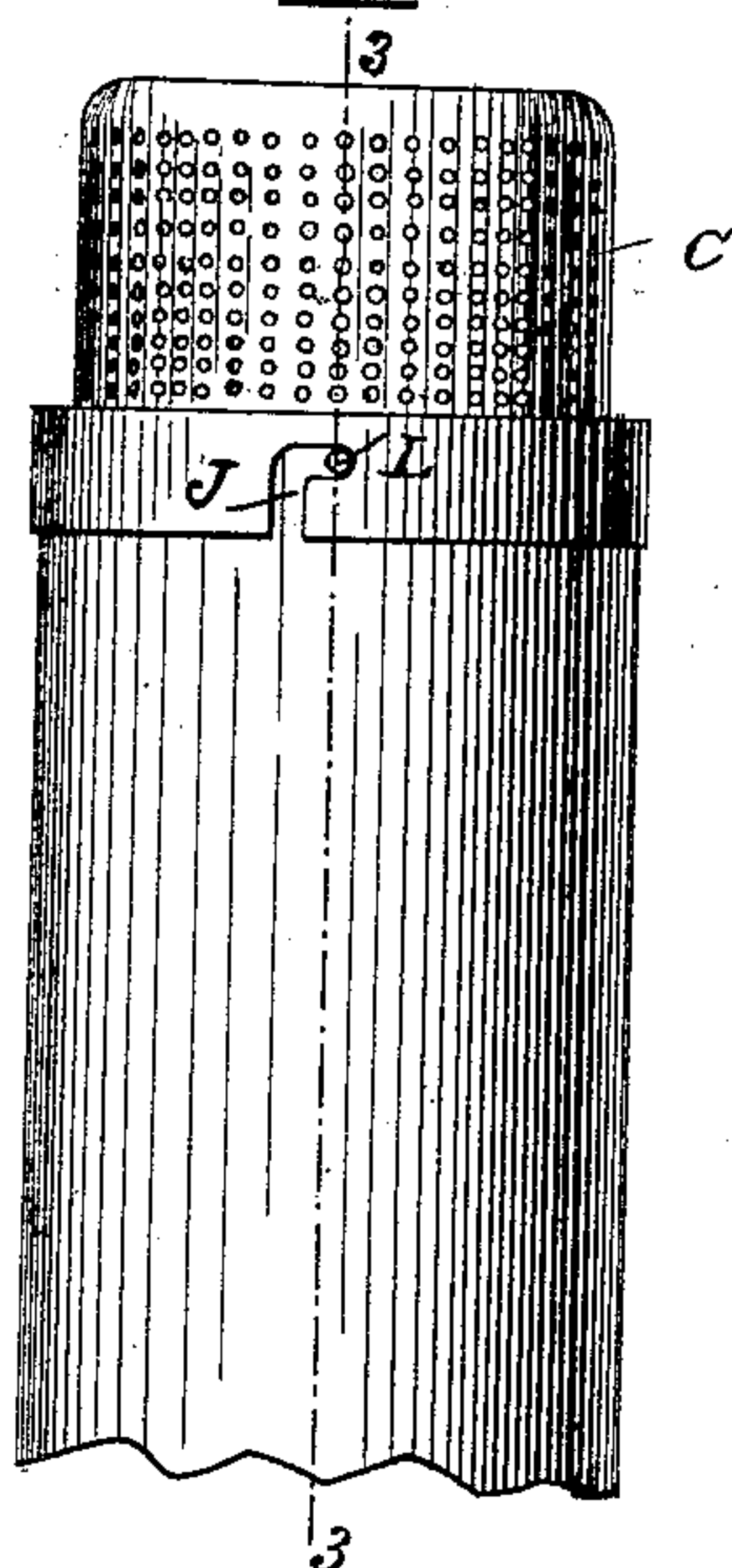


Fig. III.

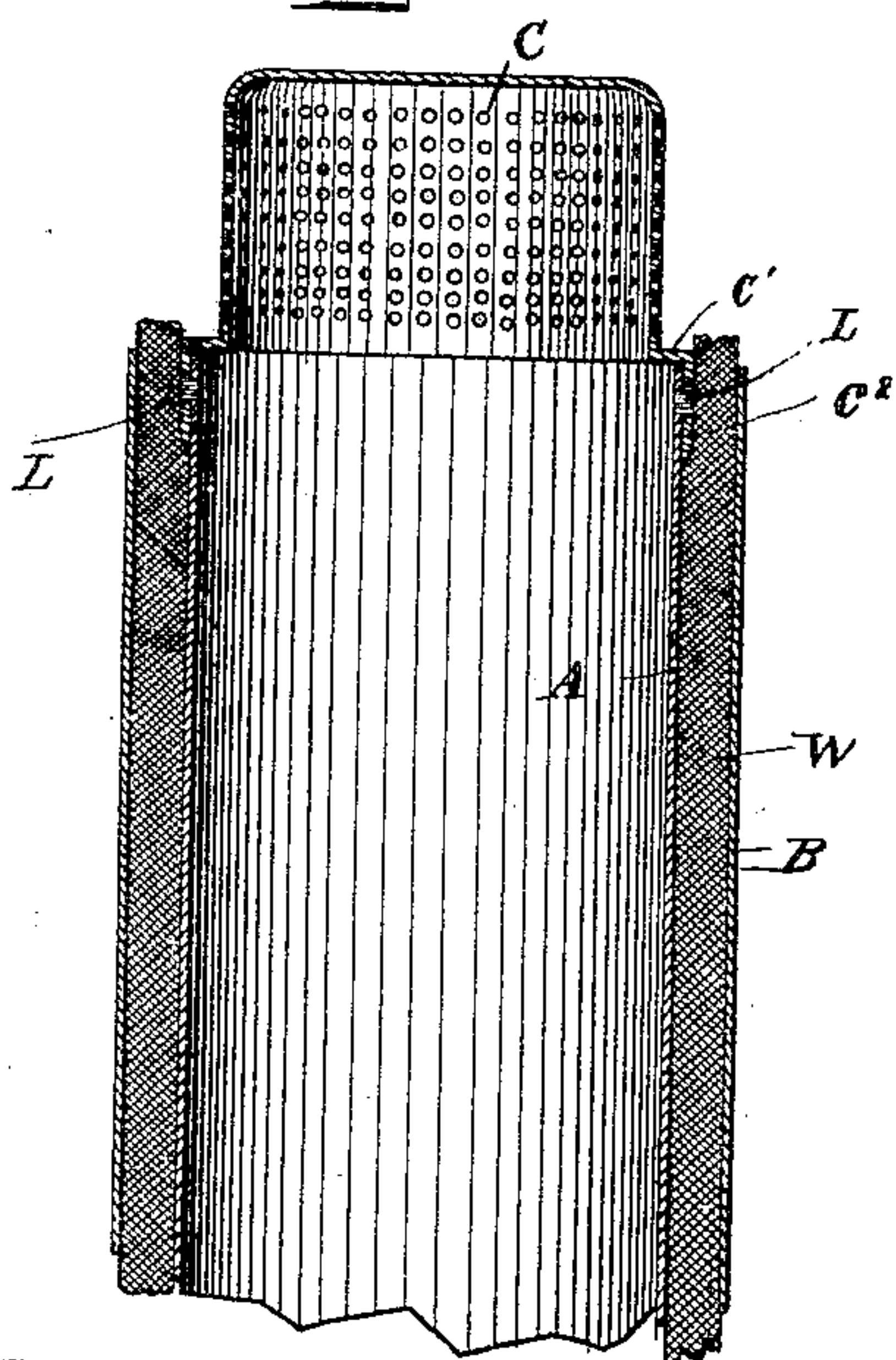
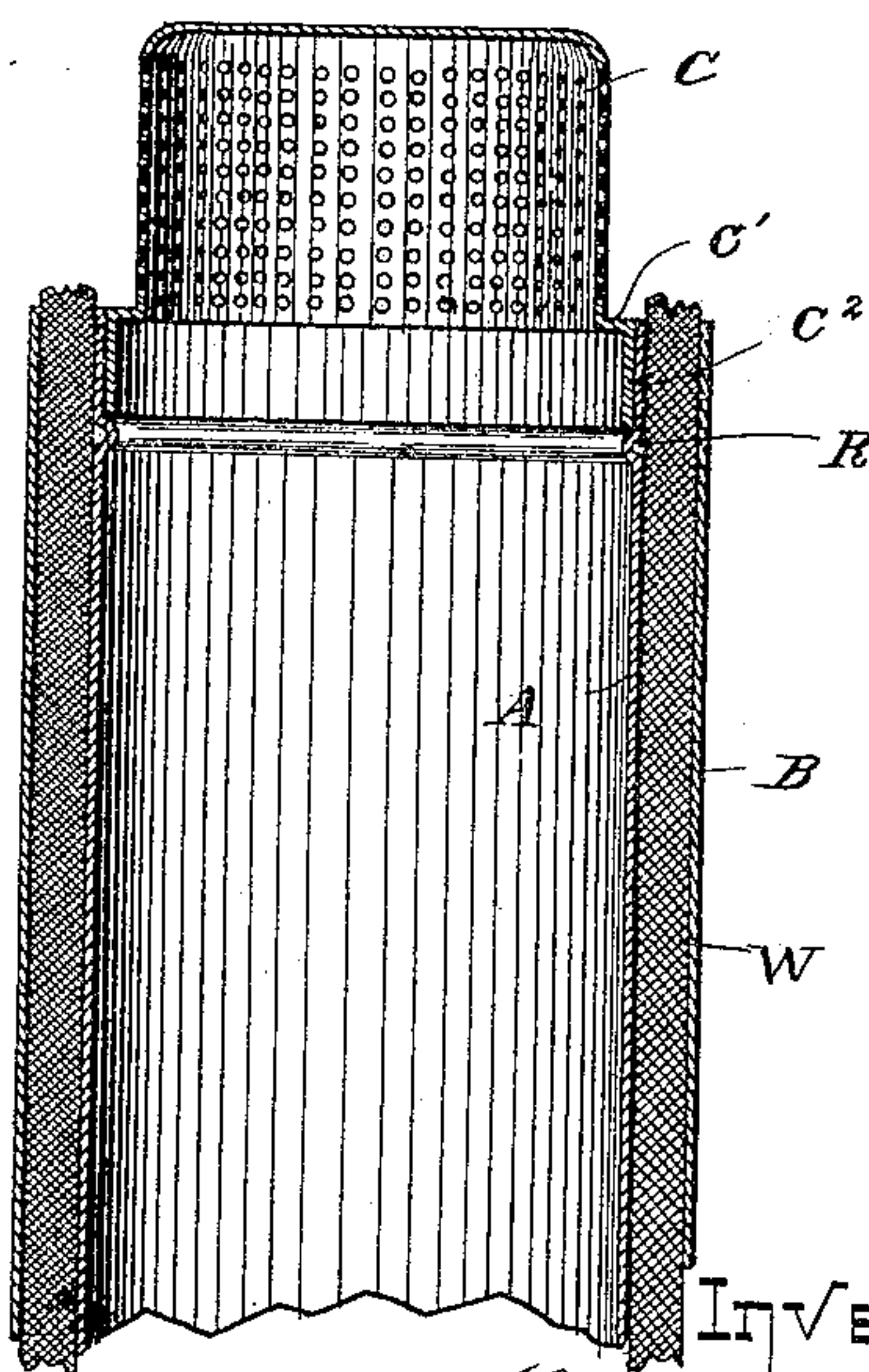


Fig. IV.



Witnesses.

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Fig. V.

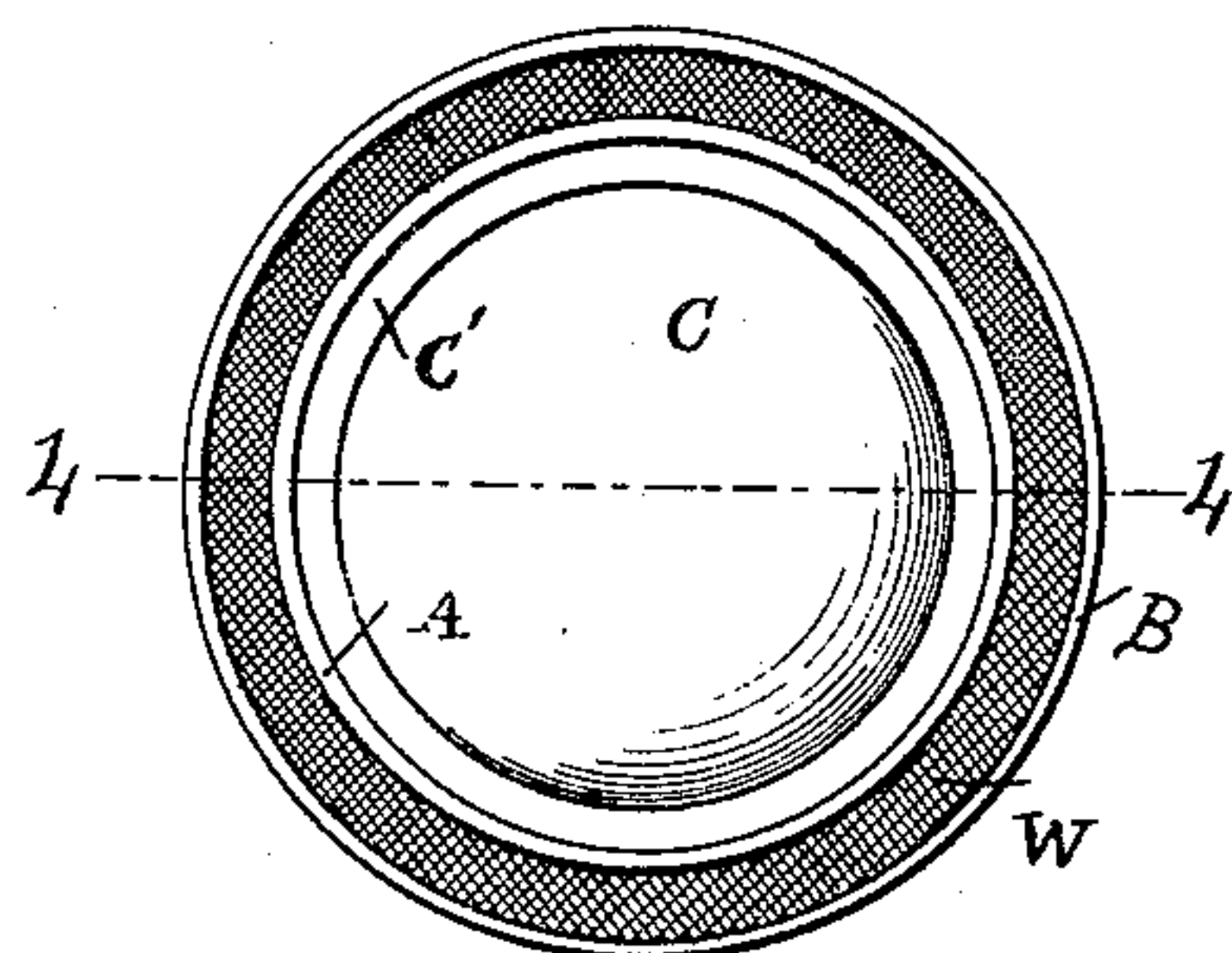


Fig. VI.

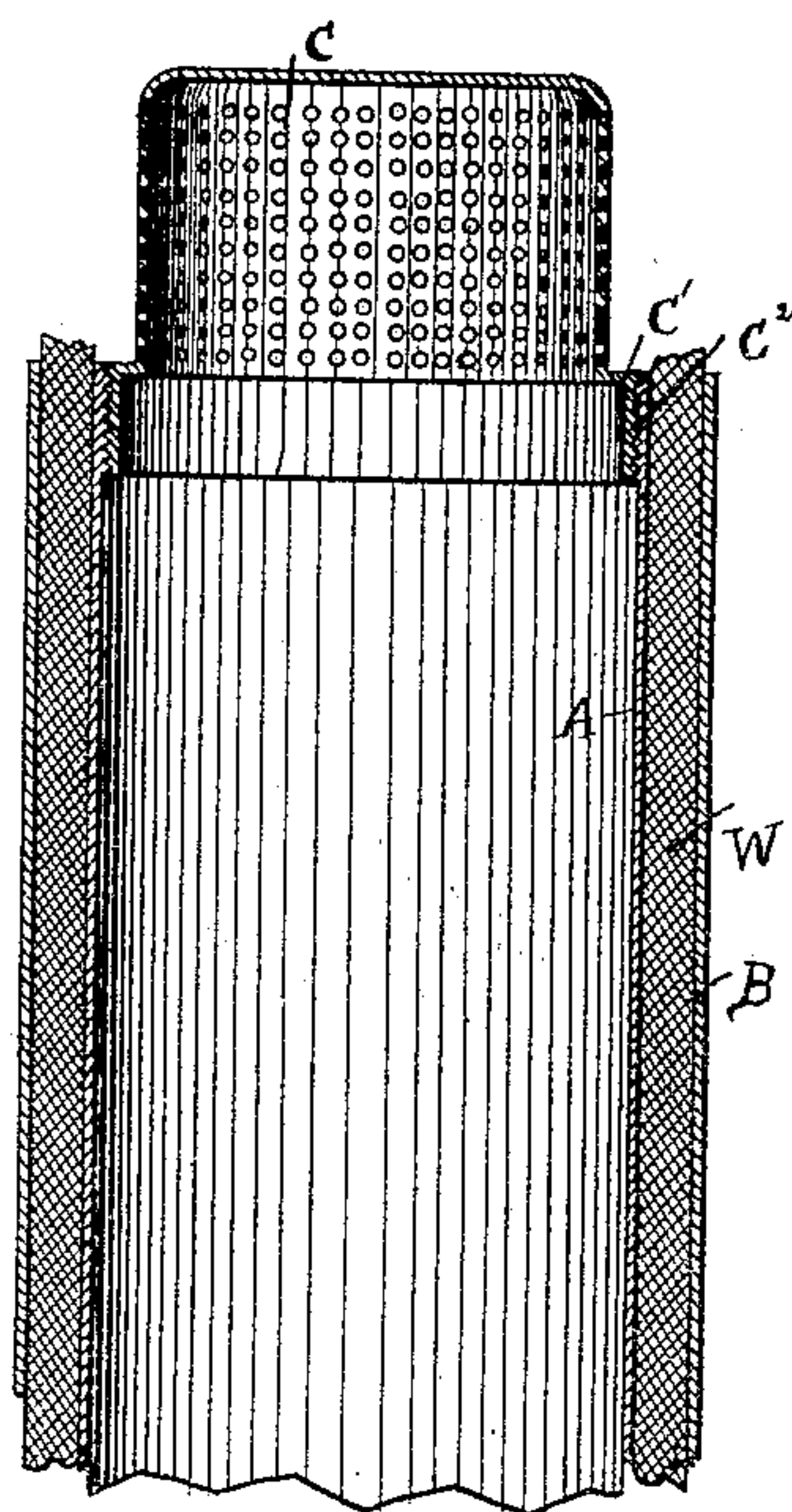
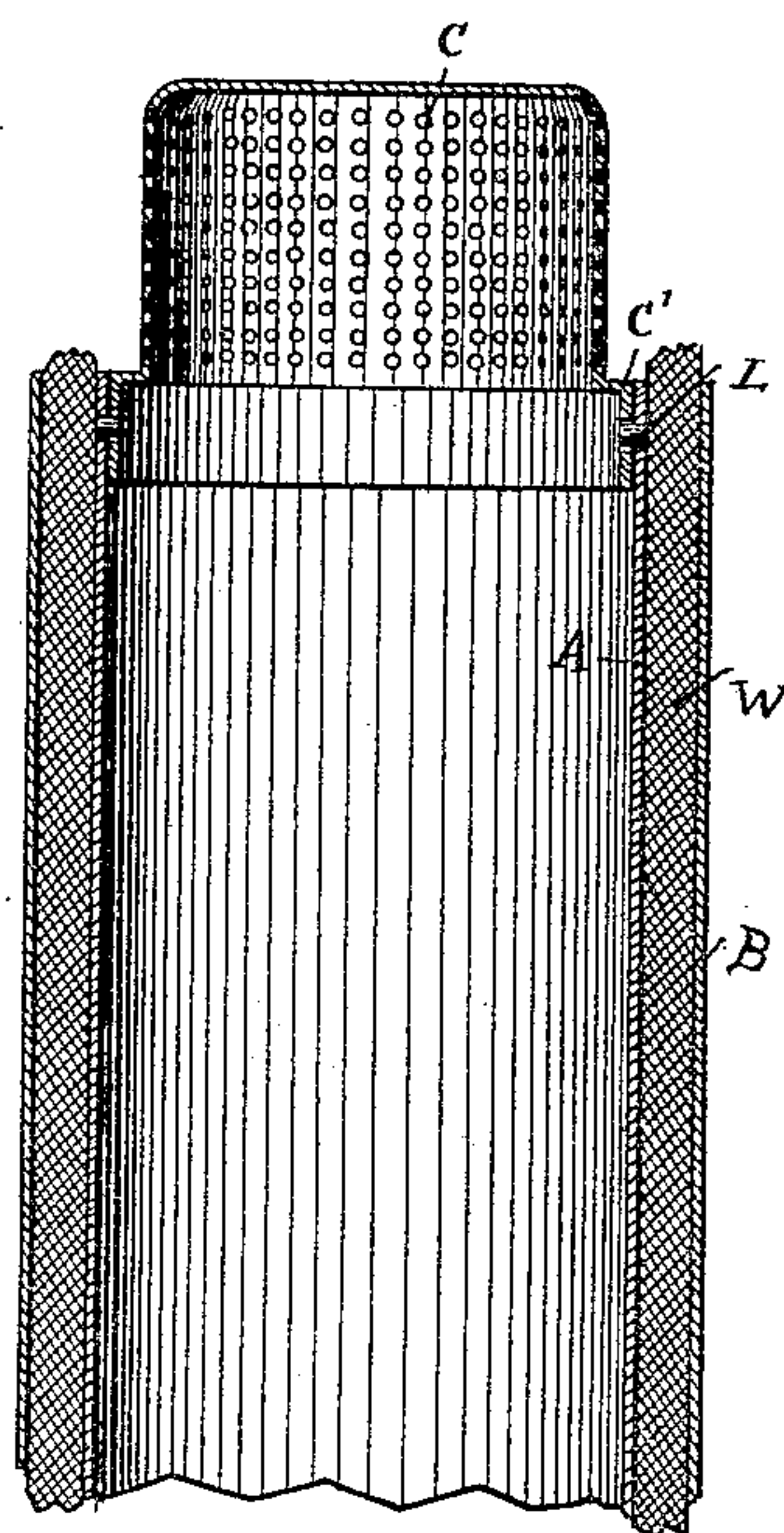


Fig. VII.



Witnesses.

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UNITED STATES PATENT OFFICE.

LEONARD HENKLE, OF ROCHESTER, ASSIGNOR TO CHARLES STANFORD
UPTON, OF NEW YORK, N. Y.

LAMP.

SPECIFICATION forming part of Letters Patent No. 435,377, dated August 26, 1890.

Original application filed May 27, 1887, Serial No. 239,565. Divided and this application filed September 25, 1889. Serial No. 324,982. (No model.)

To all whom it may concern:

Be it known that I, LEONARD HENKLE, a citizen of the United States, residing at Rochester, county of Monroe, State of New York, have invented certain new and useful Improvements in Lamps, of which the following is a specification.

This application is a division of my prior application, Serial No. 239,565, filed May 27, 1887, for improvements in lamps.

My invention relates to what are known as "Argand" or "central-draft" lamps, which employ cylindrical wicks and inner and outer wick-tubes, and are provided with inside and outside drafts for maintaining constant and even currents of fresh air to both sides of the flame.

My invention consists in the construction and arrangement of a centrally-located thimble or auxiliary tube arranged over the inner or central draft-tube, having means for retaining the same in proper position and attaching it to the draft-tube, the thimble being provided with perforations which regulate the currents of air to the inner surface of the flame, as hereinafter more fully described, and pointed out in the claims.

In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure I is a central vertical section of the central draft-tube of a Rochester lamp, showing my improved thimble or auxiliary tube attached by means of a screw-thread. Fig. II is a side elevation showing the thimble or auxiliary tube attached by means of a bayonet-joint. Fig. III is a detail view, being a vertical section on the line 3 3, Fig. II. Fig. IV is a vertical section on the line 4 4, Fig. V, showing the thimble or auxiliary tube seated within the top of the central draft-tube. Fig. V is a top view thereof. Fig. VI is a vertical section showing the thimble or auxiliary tube attached by means of a screw-thread within the top of the central-draft lamp. Fig. VII is a vertical section showing the thimble or auxiliary tube attached by means of a bayonet-joint within the top of the central draft-tube.

A is the central draft-tube, W the wick, and B the outer wick-tube of a central-draft lamp.

C is my improved thimble or auxiliary tube, which is formed with perforations, as shown. 55

In some classes of central-draft lamps I have found it desirable to cover the entire space at the top of the central draft-tube, as it happens at times that eddy currents will form in the chamber between the thimble and the inner walls of the central draft-tube where such an open space or chamber is provided, and to obviate the drawbacks and difficulties obtaining in this respect to certain sizes and designs of lamps I find it necessary to bridge the opening of the inner tube at its upper edge, so as to entirely cover it. I therefore extend the thimble or auxiliary tube C over the entire opening of the central draft-tube A, and at the upper edge thereof, as shown, and attach the said thimble and draft-tube together by suitable means, so as to prevent any danger of their becoming accidentally separated in use. 60 65 70

The perforations above referred to are located in the upper vertical side walls of the thimble or auxiliary tube, and are for the purpose of feeding the fresh incoming air to the inner surface of the flame. In order, however, to bring about the desired flame effect it is necessary to stand the perforated portion of the thimble away from the flame, and for this purpose I set it inwardly from the top of the central draft-tube A, so that when the wick is raised it will not be in juxtaposition with the walls of the perforated thimble and the currents of air will be sufficiently blended before they reach the flame to produce a satisfactory economical result. 75 80 85

To combine the advantages of the inseting thimble with the central draft-tube I have found it necessary to provide an outwardly-extending annular flange or shoulder C', which extends between the vertical perforated walls of the thimble and the upper edge of the central draft-tube A. This shoulder supports the perforated walls of the thimble and at the same time closes the central draft-tube at its upper end. The shoulder C' extends inwardly on a line flush with the top of the 90 95 100

outer wick-tube B in Figs. IV and VI, and substantially on a line in Figs. I, II, and III, and the perforated thimble extends vertically upward from the inner edge of said shoulder.

5 Another drawback my present invention is intended to obviate is the leaking or creeping over of the oil from the inner surface of the wick down the inside of the central draft-tube. This is what is known in the trade as
10 "weeping." By providing a rim or collar C² upon the lower end of the auxiliary tube C and fitting this rim or collar exactly upon the central draft-tube and connecting the parts together by suitable means, so that they will
15 not become accidentally separated, the oil that has a tendency to creep over will be directed back to the wick.

In Fig. I, I show the rim C², formed with a screw-thread R on the inside, by which the
20 thimble or auxiliary tube is secured to a screw-thread S on the outside of the central draft-tube.

In Figs. II and III, I show my thimble or auxiliary tube provided with a slot J, engaging
25 a lug L on the central draft-tube, thus forming a bayonet-joint, the lug L being stamped up or otherwise secured. The outwardly-extending shoulder C' will seat upon the upper edge of the central draft-tube A.

30 Where a short thimble or auxiliary is employed, located on the outside of the tube, it is necessary to fasten or lock it positively, as by a screw-thread or bayonet-joint, otherwise the wick when raised would dislodge it from
35 its proper position. In lieu, however, of screwing or joining the thimble or auxiliary tube on the outside of the tube A, the parts may be reversed and it may be screwed or attached on the inside, as shown in Figs. IV,
40 V, VI, and VII, where Figs. IV and V show the thimble or auxiliary tube attached by the rim seating on a thread R, in Fig. VI by a screw-thread, and in Fig. VII by a bayonet-joint.

45 Where the collar C² is fitted on the inside of the central draft-tube A, it is necessary to fit it quite tightly in order to prevent the leaking or weeping aforesaid, and for this purpose, in the form shown in Figs. IV and V, I construct the collar C² a little large, so that as it
50 is forced in the central draft-tube it will spring against the sides and thus effectually secure the two parts together.

In every case the means for supporting and
55 retaining the thimble or auxiliary tube in its proper central position is formed in one with the central draft-tube, and the complementary interlocking or fastening device on the thimble is formed integrally with the said thimble,

so that the intermediate supporting pins or
60 rods which have been heretofore employed for supporting and centering the thimble are dispensed with. The perforated thimble C will thus be directly supported and retained
65 in position at its lower end upon the central draft-tube A, or a protruding part thereof.

It will be seen that the portion including the top of the thimble or auxiliary tube above the shoulder is of smaller diameter than the
70 central draft-tube, as the shoulder extends inwardly from the upper edge of the latter. The sides of the perforated portion are vertical and the top thereof imperforate.

Having thus described my invention, the following is what I claim as new therein and
75 desire to secure by Letters Patent:

1. The combination of a central draft-tube, a perforated thimble formed with an outwardly-extending shoulder and a rim, and means for locking or fastening the thimble to
80 the central draft-tube.

2. In a central-draft lamp, the combination of a central draft-tube with the perforated thimble or auxiliary tube located at the upper
85 end of the draft-tube, and means for securing or fastening them to each other.

3. In a central-draft lamp, the combination of a central draft-tube with the perforated thimble or auxiliary tube located at the upper
90 end of the draft-tube, the two parts being connected and locked together by means of a bayonet-joint, as shown and described.

4. In a central-draft lamp, the combination of a central draft-tube, with a perforated
95 thimble or auxiliary tube setting over the outside of the central draft-tube and being supported thereby, and means for securing one to the other, substantially as and for the purpose set forth.

5. In a central-draft lamp, the combination
100 of the central draft-tube, a perforated thimble or auxiliary tube setting over the outside of the central draft-tube, with means for supporting the auxiliary tube and connecting it to the central draft-tube in concentric position.
105

6. In a central-draft lamp, the combination, with the central draft-tube, of a perforated
110 thimble or auxiliary tube setting over the outside of the central draft-tube and attached thereto, and closing the latter at the upper edge thereof, so that all of the inner draft will be directed through the perforations.

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Witnesses:

HERBERT KNIGHT,
GEORGE S. BELL.