

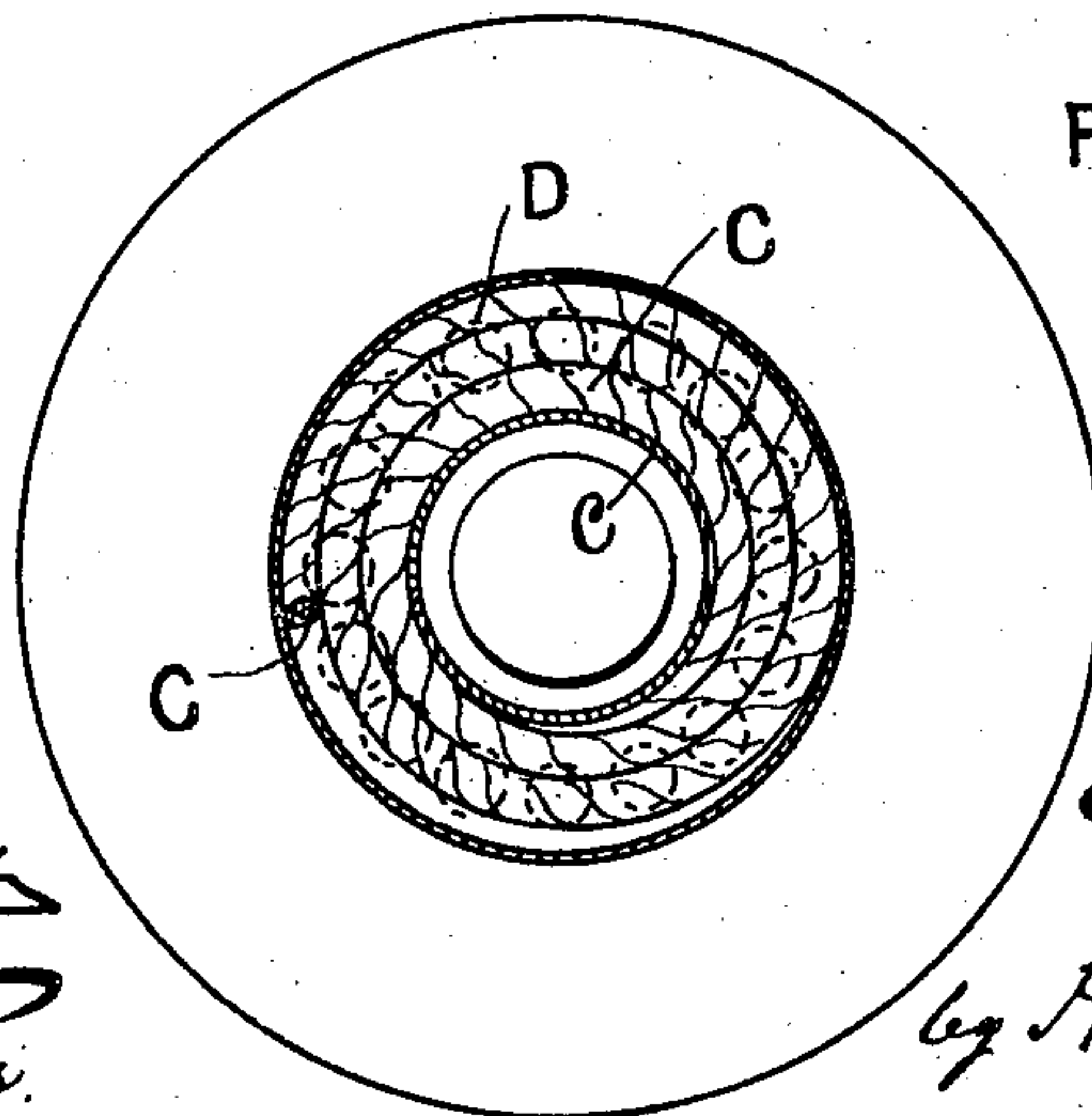
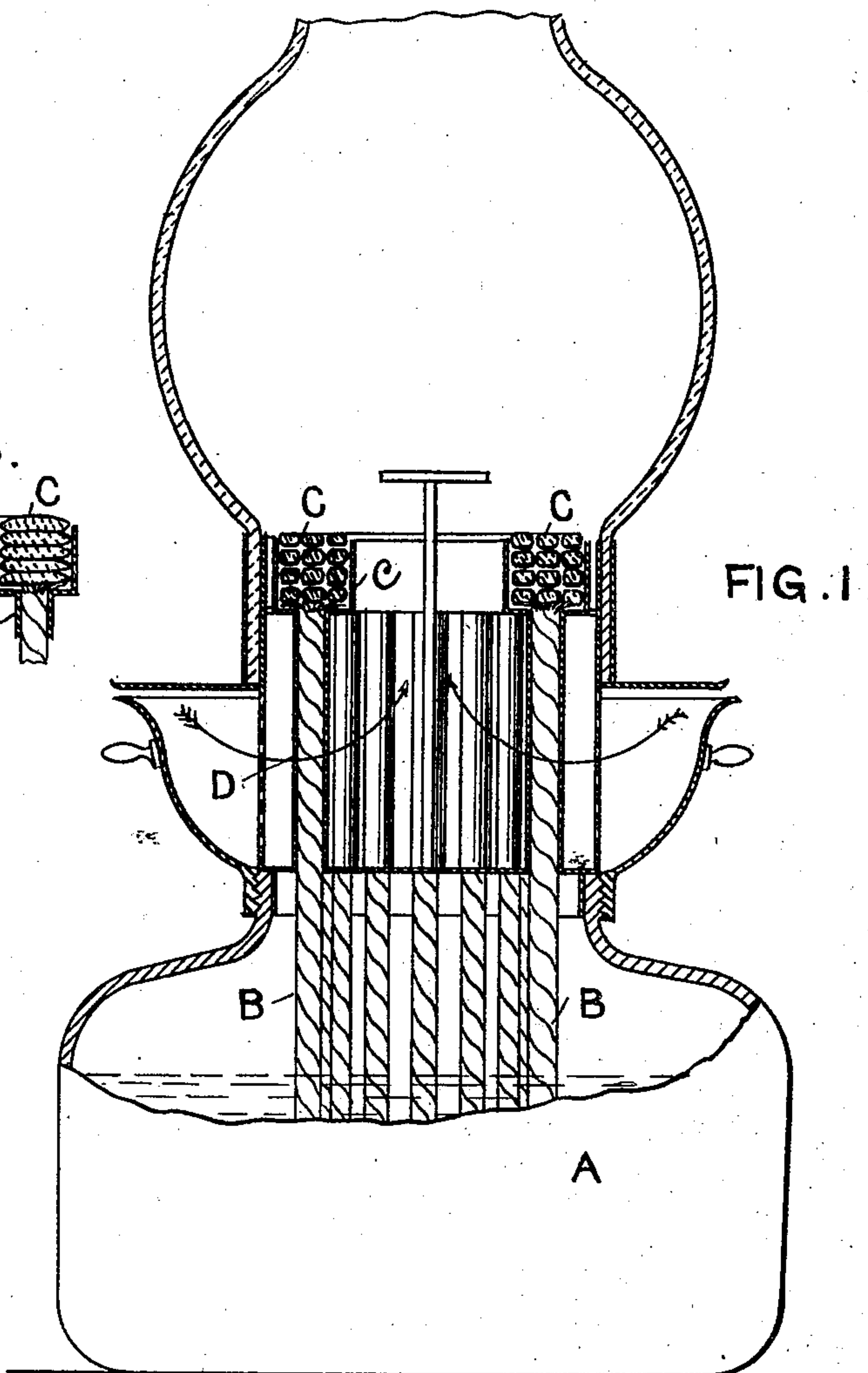
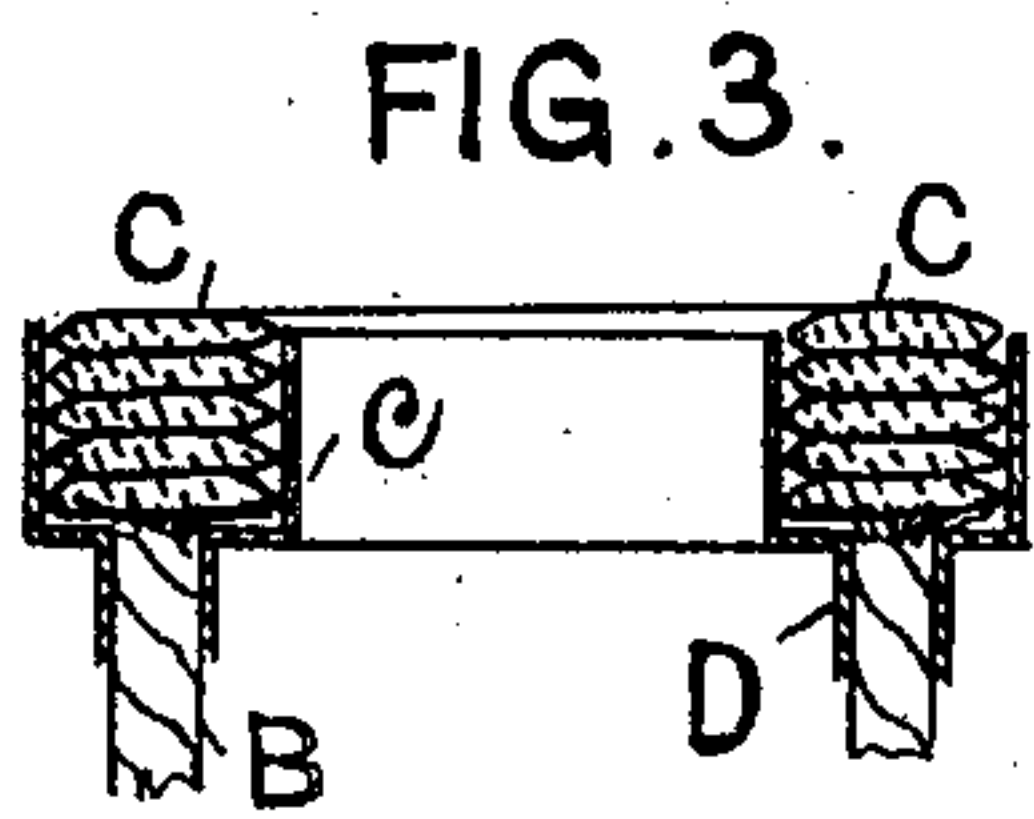
No. 690,747.

Patented Jan. 7, 1902.

E. S. MACFIE.  
LAMP WICK.

(Application filed Mar. 11, 1901.)

(No Model.)



Witnesses

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# UNITED STATES PATENT OFFICE.

EDMUND S. MACFIE, OF SOUTHPORT, ENGLAND.

## LAMP-WICK.

SPECIFICATION forming part of Letters Patent No. 690,747, dated January 7, 1902.

Application filed March 11, 1901. Serial No. 50,578. (No model.)

*To all whom it may concern:*

Be it known that I, EDMUND SHAW MACFIE, a subject of the King of Great Britain, and a resident of Lismore House, Birkdale, Southport, in the county of Lancaster, England, have invented certain new and useful Improvements in Lamp-Wicks, of which the following is a specification.

This invention relates to lamp-wicks of fibrous refractory mineral substances, such as asbestos; and the object of the invention is to provide a wick of this material that will not become readily clogged up with carbonaceous substances or distillates.

Heretofore, so far as I am aware, all attempts to produce a satisfactory lamp-wick from asbestos have failed for the reason that they soon clog up and lose their capillary qualities. This I believe to be due, in the main, to the use of asbestos mill-board and asbestos charged with steatite, which is not of sufficiently open texture to retain its capillarity and allow a sufficiently-free flow of oil to the burning-point.

In carrying out my invention I employ the most fibrous kind of asbestos, free from steatite and formed loosely into a flattened rope or cord by preference. This rope or cord is coiled within the annular wick-tube, but not so as to fill the same tightly, but, on the contrary, rather loosely, so that the oil may rise in the interstices of the coils, as well as in the interstices between the fibers. It is not so material to the invention just how the wick as a whole is arranged; but it is essential that the texture shall be loose and open, so as to provide ample interstices for the flow of oil.

In the drawings which serve to illustrate an embodiment of my invention I have shown it as applied to a well-known form of lamp, as I find this lamp admirably adapted for my improved wick.

In the drawings, Figure 1 is a vertical axial section of the lamp; and Fig. 2 is a horizontal section, the same taken through the annular burner-tube and the wick coiled therein. Fig. 3 is a section similar to Fig. 1, illustrating a form of the wick slightly different from that seen in Figs. 1 and 2.

In Figs. 1 and 2, A designates the lamp-body; B, a series of pendent wicks which extend up through a series of tubes D, arranged

in a circle and opening at their upper ends into an annular wick-tube *c*, which is somewhat in the form of an annular trough about the central air-tube. The curved arrows in Fig. 1 show how the air is supplied in this form of lamp. In the wick tube or trough *c* is coiled the asbestos wick C. This wick is by preference in the form of a loosely formed and flattened cord, all in one length and coiled as shown, its upper surface rising slightly above the upper margin of the tube *c*. The wicks B may be also of asbestos or mineral fiber, and their upper ends, which enter the trough *c*, are spread or made brush-like, the wick C resting thereon. Preferably the wick C will have its coils united by sewing, so as to form an annulus or ring.

In Fig. 3 the annular wick C is substantially the same as that of Fig. 1, but is made of a broader and more flattened cord or rope. In both cases the annular or ring-like wick should fit quite loosely in the wick-tube *c*, which in lamps of this kind usually contains a wick of carbon.

I do not limit myself to the use of a lamp of exactly this kind in connection with my wick. Any ordinary lamp of this general character may be altered and adapted to the wick I have described.

Having thus described my invention, I claim—

1. As an improved article of manufacture, a lamp-wick of fibrous, refractory mineral fiber, in the form of a flattened rope or cord coiled into a ring, the said cord being loosely twisted so as to insure ample capillary interstices for the oil, substantially as set forth.

2. The combination with a circular series of pendent wicks, of a ring-like wick in operative contact with the upper end of said pendent wicks, said ring-like wick being composed of a coiled, loosely twisted or formed cord of asbestos fiber, substantially as set forth.

In witness whereof I have hereunto signed my name, this 21st day of February, 1901, in the presence of two subscribing witnesses.

E. S. MACFIE.

Witnesses:

G. C. DYMOND,  
F. P. EVANS.