

No. 886,204.

PATENTED APR. 28, 1908.

R. L. GRAVES.
MINER'S LAMP.
APPLICATION FILED MAY 8, 1907.

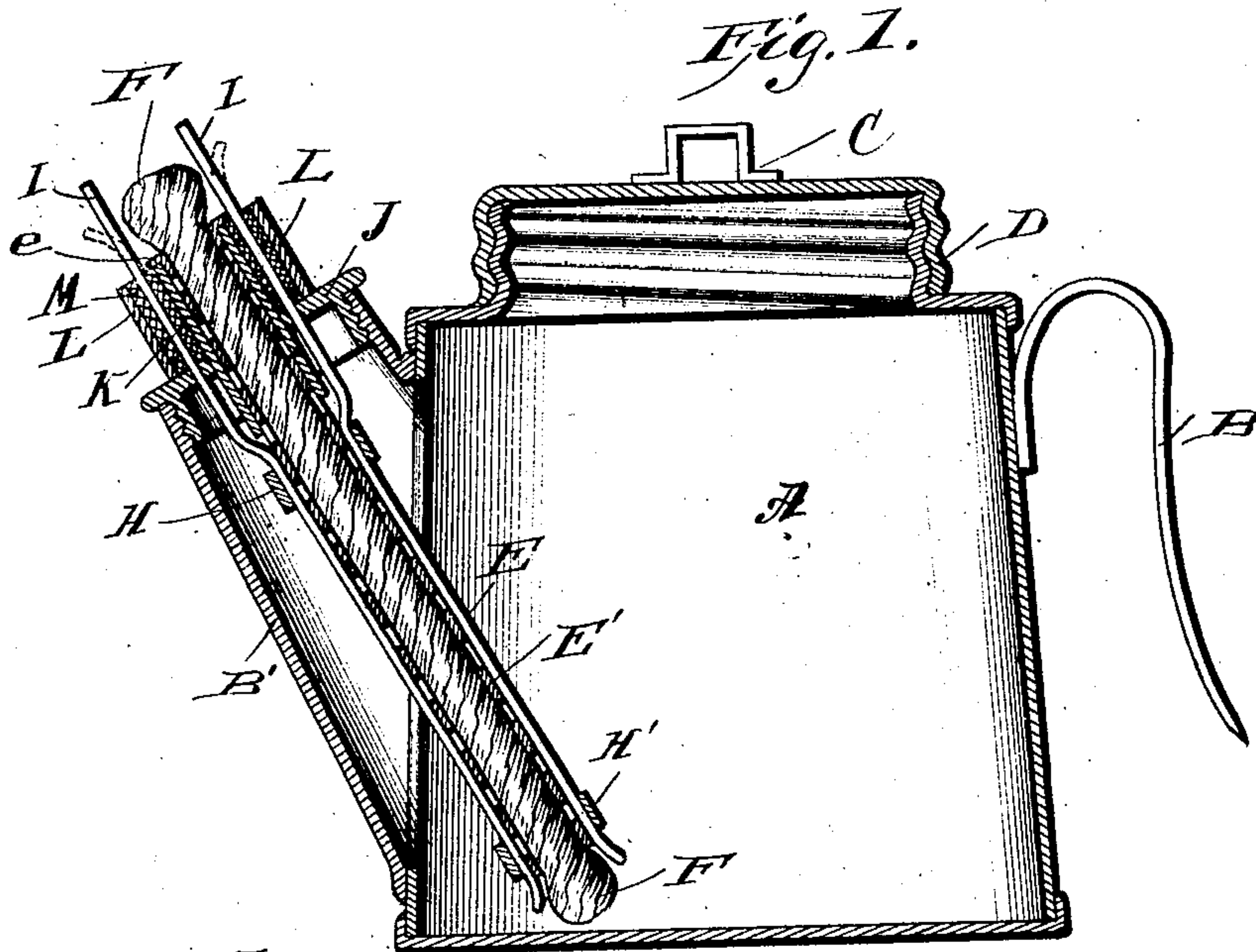


Fig. 5.

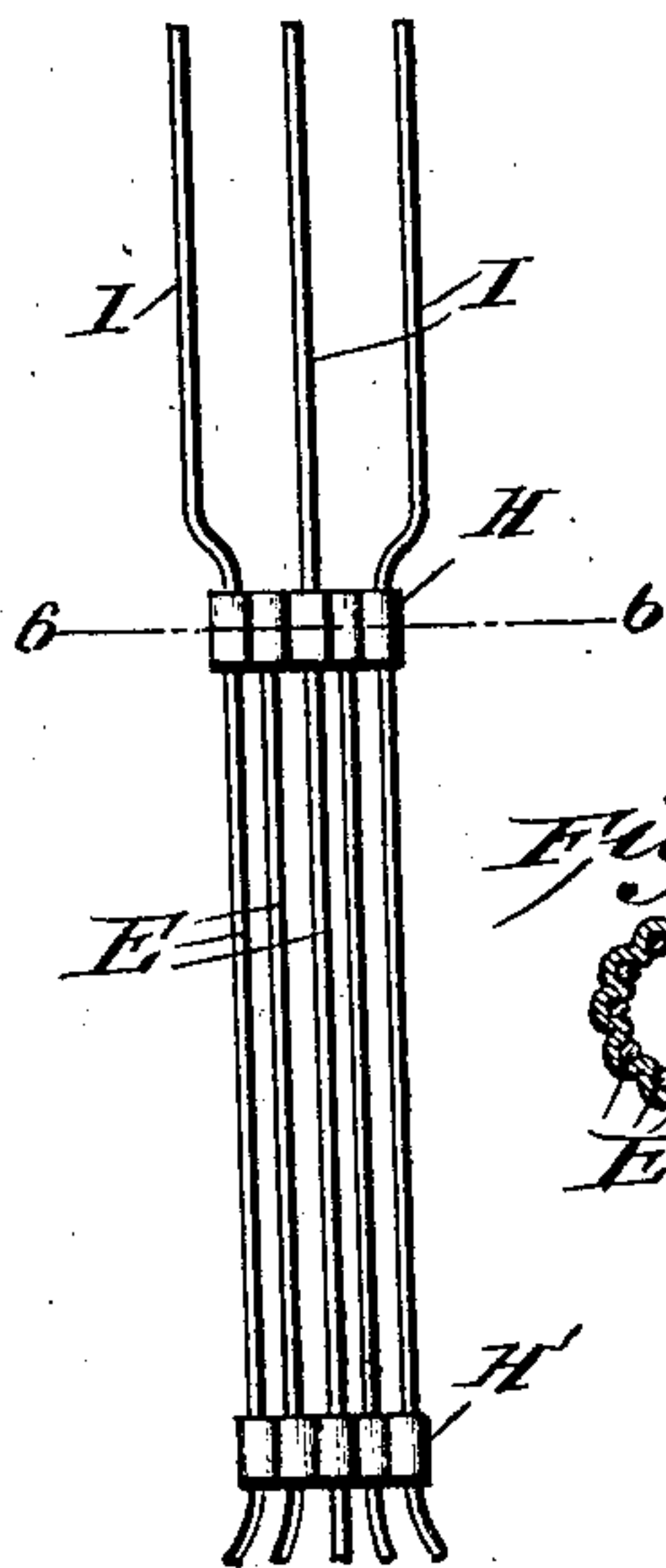


Fig. 2.

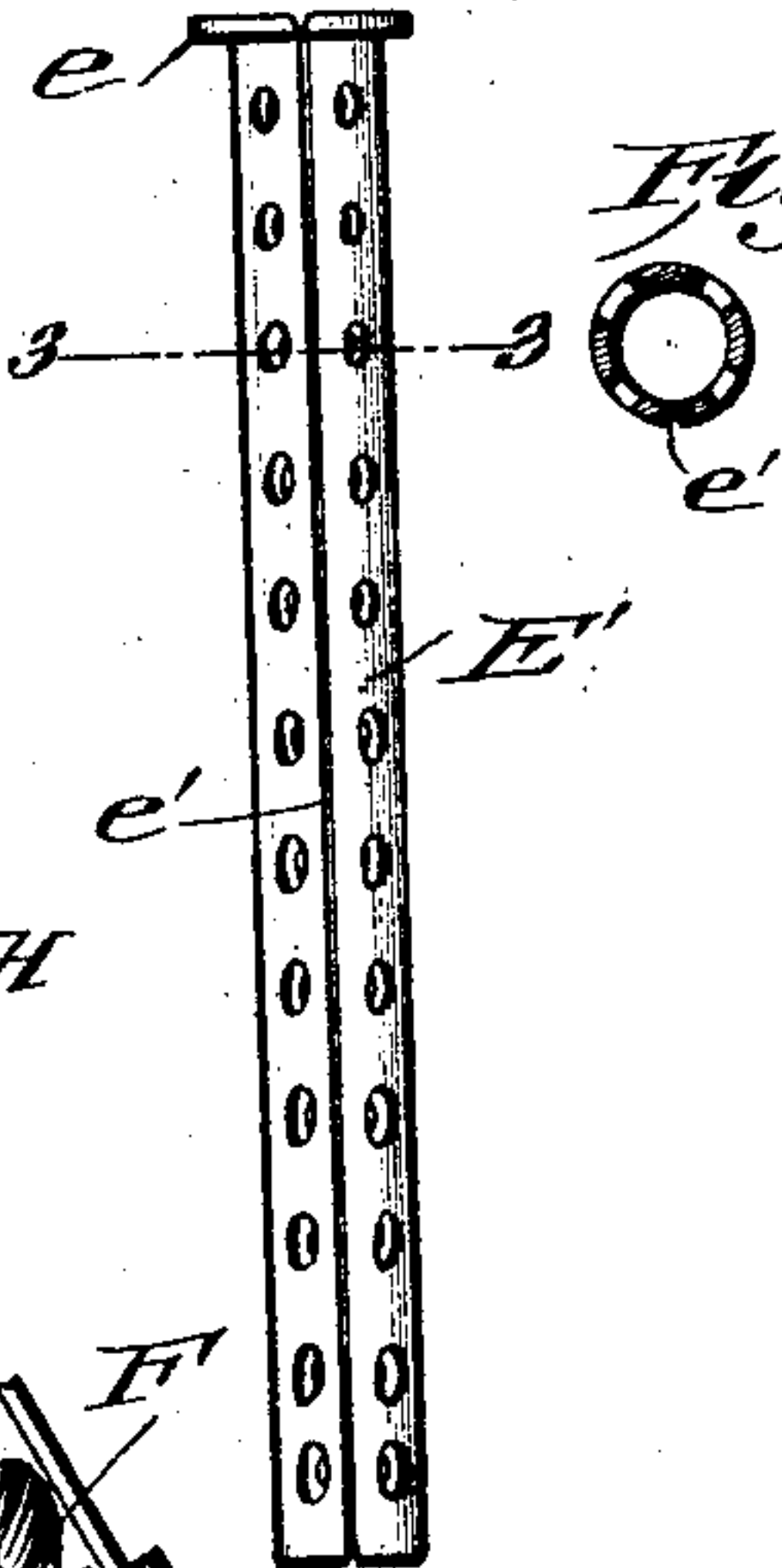


Fig. 3.



Fig. 4.

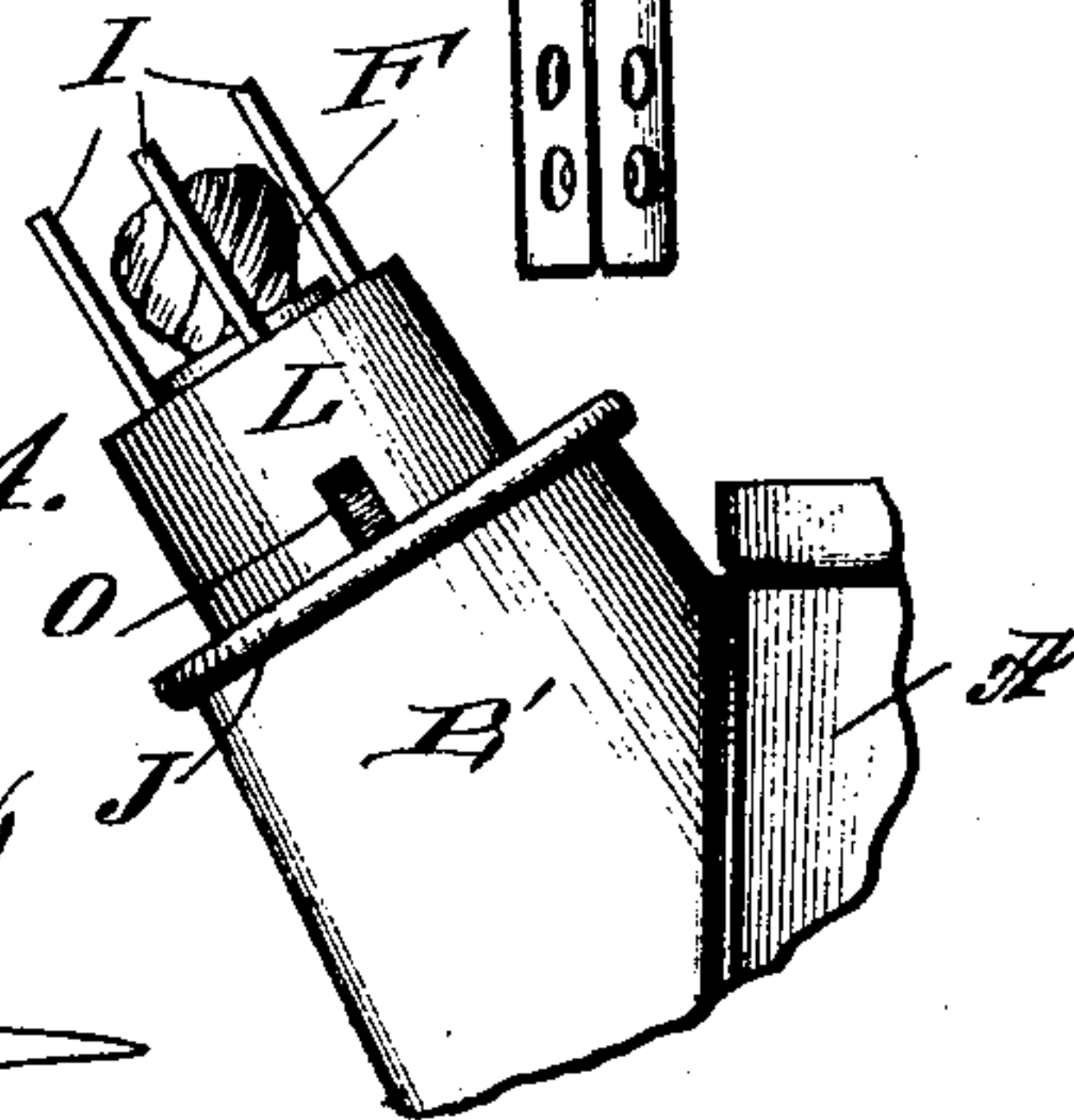
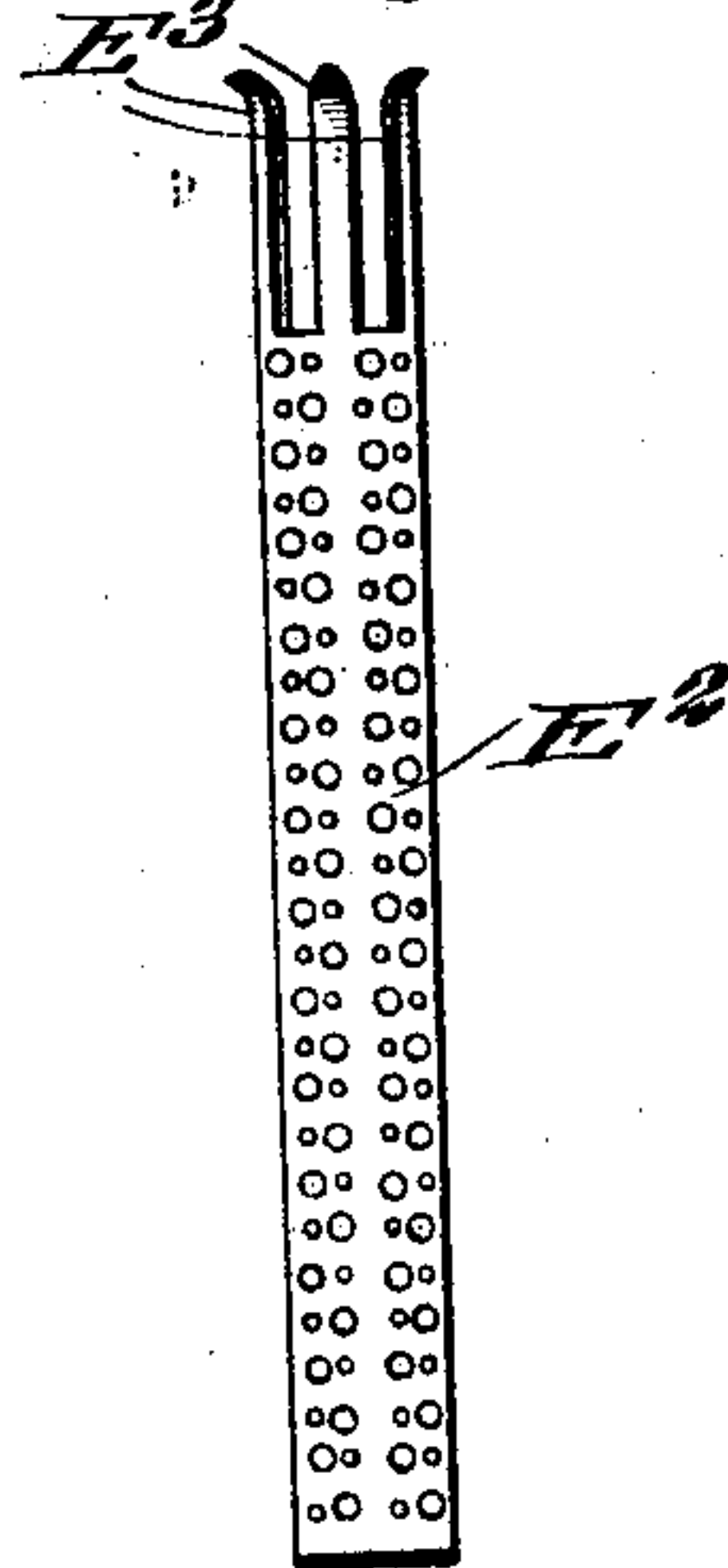


Fig. 7.



WITNESSES
E. M. Callaghan, J.
Geo. S. Brock.

INVENTOR
RALPH L. GRAVES
BY *Munn & Co.*
ATTORNEYS

UNITED STATES PATENT OFFICE.

RALPH L. GRAVES, OF SUMTER, OREGON.

MINER'S LAMP.

No. 886,204.

Specification of Letters Patent.

Patented April 28, 1908.

Application filed May 8, 1907. Serial No. 372,468.

To all whom it may concern:

Be it known that I, RALPH L. GRAVES, a citizen of the United States, and a resident of Sumter, in the county of Baker and State of Oregon, have invented certain new and useful Improvements in Miners' Lamps, of which the following is a specification.

My invention relates to improvements in that class of lamps in which paraffin, wax or other solid fuel is used and is designed as an improvement on the lamp shown and described in an application filed by me having Serial No. 329,069, the object of the improvement being to render the lamp more convenient in handling, in that the wick tube can be readily removed and rewicked with little or no trouble.

With this and other objects in view my present invention consists in certain novel features of construction, arrangement and combination of parts, reference being had to the accompanying drawings in which

Figure 1 is a vertical section of a miner's lamp showing my improvements applied. Fig. 2 is an elevation of the wick tube removed from the spout. Fig. 3 is a transverse horizontal view of the same taken on line 3—3 of Fig. 2. Fig. 4 is a side elevation of the upper end of the spout. Fig. 5 is a side elevation of the under tube container. Fig. 6 is transverse horizontal section of same taken on line 6—6 of Fig. 5. Fig. 7 is a view of modified form of wick tube container which may be used.

In describing my invention which is an improvement on the lamp shown and described in my former application, I will first briefly describe the construction shown in said application and then describe in detail the improved features.

I use a lamp of the no-chimney type comprising a reservoir or body A provided with the hook B, and the removable screw threaded cap closure D, which may be provided with the suspension loop C. The spout B' which contains the wick tube projects upwardly in a diagonal direction from the reservoir A.

E designates the wick container which is composed of conductive material such as copper wires G arranged in tubular form and secured and held in such shape by the collars H, H' crimped thereon or otherwise securely fastened thereon, as shown in Figs. 5 and 6. A number of the wires project beyond the upper collar H constituting extensions I

which pass through openings in the spout cap J, said openings being arranged around the wick collar K. Around the wick collar K above the cap J, I place a gasket of asbestos M, the extension I passing through this gasket and around this gasket is slipped another collar L; this gasket is to prevent the fuel from running out when warm. Within the wick collar K and the wick container E is slipped an expansible foraminous tube E' open at both ends, the upper end having an overturned annular lip or flange e; this tube is slitted as at e' at one side, throughout its entire length to give the tube its expansibility. The wick F which is of the usual material used in this class of lamps is placed in this tube E', and by pressing on the sides of said tube with the thumb and forefinger it will be slightly compressed so that it can be readily slipped through the collar K and down into the container E. The filaments composing the container E project beyond the upper end of the wick and when the wick is lighted by their conductivity warm the solid fuel and liquefy the same, when by the capillarity of the wick it will pass up through the wick and furnish a strong flame.

While I prefer to secure the wire extensions I to the wick collar K, as shown, it is obvious that other means may be employed for this purpose without departing from the scope and spirit of my invention.

In Fig. 7, I show another form of wick tube container, the same being constructed of a conductive tubular foraminous body E², and the upper end fashioned with integral extensions E³ designed to project through the cap J into position to be adapted to be heated by the wick flame in a manner similar to that described for heating the wire extensions I. When it is desired to secure a larger flame the extensions I or E³ may be bent outwardly as indicated by dotted lines in Fig. 1. Through the wick collar K and the collar L, I make elongated slots O through which the point of a miner's candlestick may be passed to raise the wick.

With my improvements, the fuel is retained in a fluid condition no matter in which direction the flame is blown, since in any deflection of the flame, one or more of the conductive extensions I or E³ will receive heat and the same be conducted into the lamp body to the wick tube container and as the split wick tube itself will by its elasticity lie in close contact with the container keeping

the container and wick tube sufficiently heated for keeping the fuel in a heated and liquid condition.

5 The flange *c* on the upper end of the expansible tube *E'* serves to aid in retaining the asbestos gasket *M* in its proper place.

I claim—

10 In a miner's lamp, the combination with the spout thereof, of a wick tube container adjustably held in said spout, said container comprising a series of wires held in tubular arrangement, the upper portion of said container being of greater diameter than the lower portion thereof, of a wick collar having
15 a slot in one side and rigidly secured to said

spout and projecting beyond the same, within the upper portion of the container, a sleeve surrounding said collar, and provided with slots, and an expansible foraminous wick tube horizontally flanged at its outer end and snugly held in said container and adapted to be longitudinally adjustable in the container by a candlestick pin inserted through the aforesaid slots and to be removed from the outside by means of the 25 aforesaid flange.

RALPH L. GRAVES.

Witnesses:

FRANK S. BAILLIE,
O. D. MORRILL.