

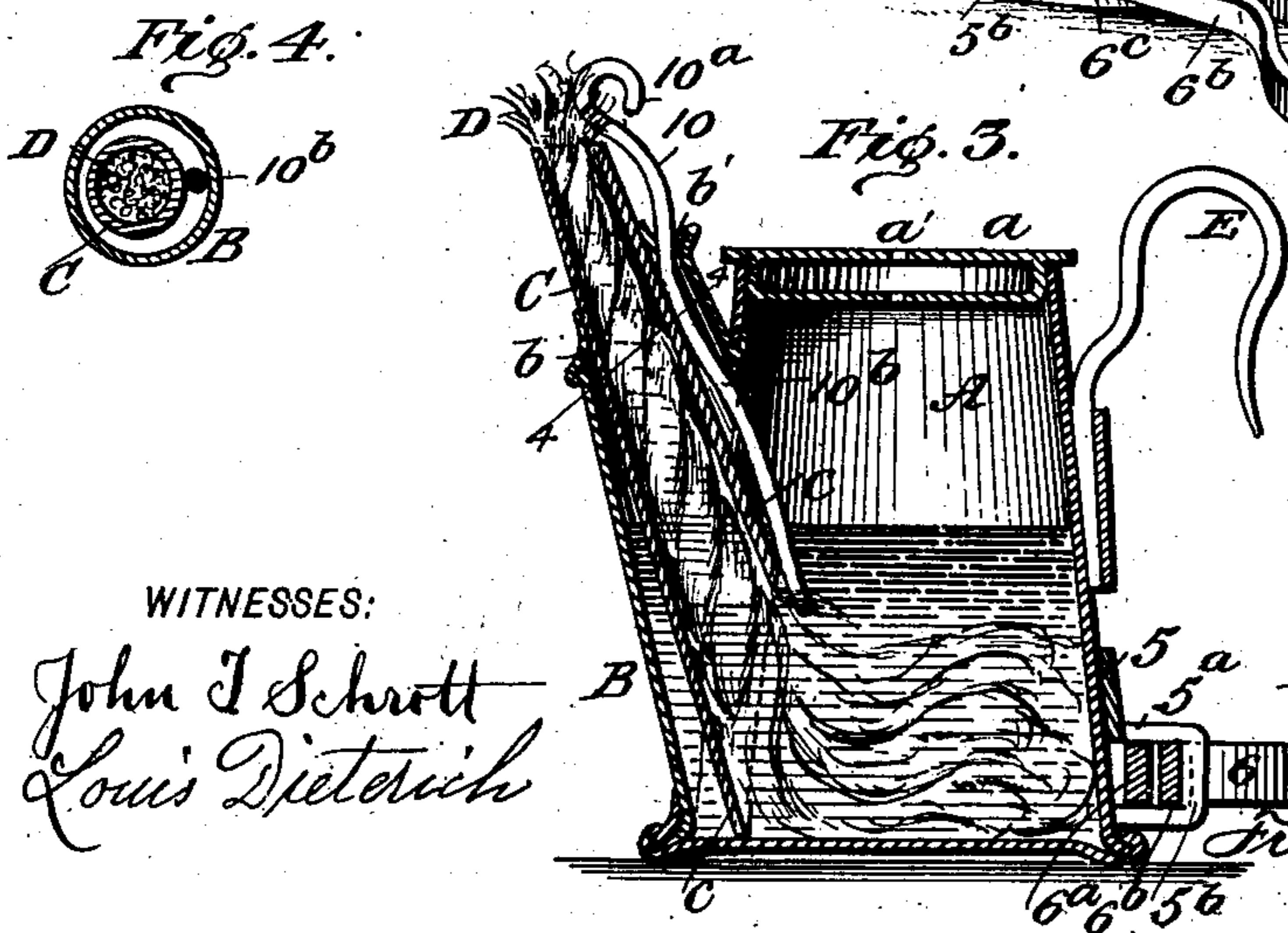
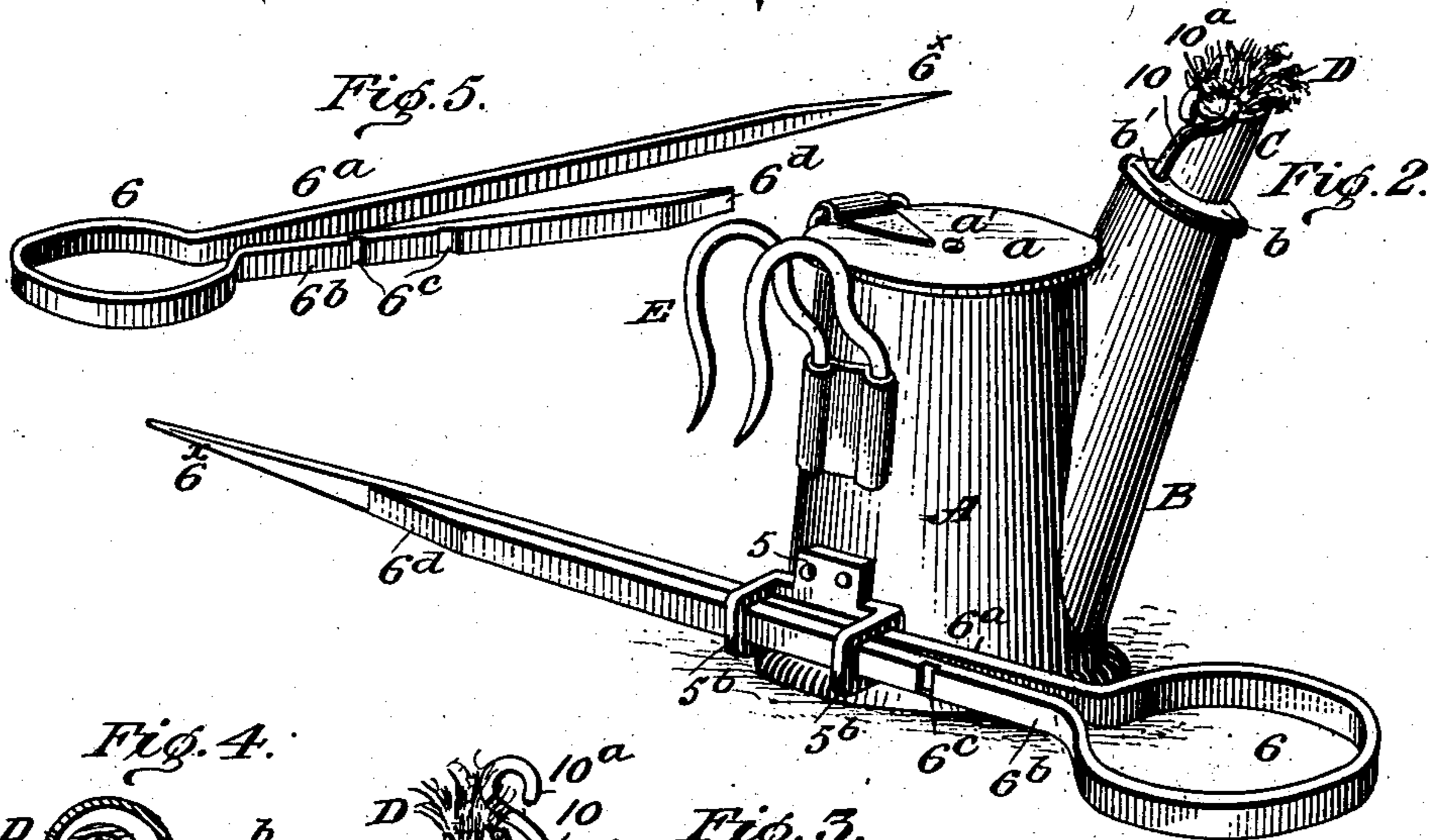
No. 744,686.

PATENTED NOV. 17, 1903.

L. J. HUSSON.
MINER'S LAMP.

APPLICATION FILED FEB. 2, 1903.

NO MODEL.



WITNESSES:

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LAWRENCE J. HUSSON, OF NORWAY, MICHIGAN.

MINER'S LAMP.

SPECIFICATION forming part of Letters Patent No. 744,686, dated November 17, 1903.

Application filed February 2, 1903. Serial No. 141,521. (No model.)

To all whom it may concern:

Be it known that I, LAWRENCE J. HUSSON, residing at Norway, in the county of Dickerson and State of Michigan, have invented certain new and useful Improvements in Miners' Lamps, of which the following is a specification.

My invention has relation to improvements in miners' lamps, and is more particularly designed for providing a simple and inexpensive improved means whereby the illuminant oil or other combustible agent contained in the lamp is kept in a sufficiently liquid or soft state whereby to maintain a uniform and continuous capillary action of the wick.

My invention also comprehends in its more complete nature an improved arrangement of pick device and means for detachably sustaining it upon the lamp-body; and in its still more subordinate features my invention consists in the peculiar combination and detailed arrangement of parts, all of which will hereinafter be fully explained, and specifically pointed out in the appended claims, reference being had to the drawings, in which—

Figure 1 is a view of my improved lamp as applied for use. Fig. 2 is a perspective view of the lamp with the picker device attached. Fig. 3 is a vertical section of the lamp complete. Fig. 4 is a detail horizontal section on the line 4-4 of Fig. 3. Fig. 5 is a detail view of the picker device detached.

The body A of the lamp is of the usual construction and has the holding-hooks E, secured thereto in any desired manner.

B designates the nozzle, which tapers upwardly and terminates in an annular rim b, which is soldered or otherwise made fast to the wick-tube C, which is of considerable less diameter than the nozzle B into which it extends, whereby to provide for a free circulation of the oil contained within the lamp around the entrant or lower end of the tube C, and the latter to secure the best results has its entrant end projected inside of the mouth of the nozzle B, as clearly shown in Fig. 3. The rim portion b of the nozzle B has a single aperture b', the purpose of which will presently appear, and the lamp-body A has the usual hinged cover a, having vents a' a', as shown.

The mineral oil generally used in miners'

lamps of the kind illustrated under a low temperature frequently hardens or congeals to such extent as to require heating the lamp-body to melt the same sufficiently to provide for the proper capillary flow of the same into and through the wick. Devices have heretofore been provided for maintaining the oil in a proper fluid state in the nature of a metal rod extended down within the wick and into the can-body under the wick and which is heated from the lamp-flame and acts to keep warm the oil within the lamp. This method of applying the oil-heating means I have found in practice not all that is desired and open to serious objections for the reason that the metal member when projected through the wick interrupts the proper flow of the oil, loses much of its heat-radiating qualities, and also interferes with properly and conveniently picking the wick when it is necessary to draw it out. Furthermore, by being immersed within the wick it is held from direct contact with the wick-tube or the metal body in which the oil is held or over which it flows. In my construction of lamp I use a stout spring copper wire 10, which is bowed or bent lengthwise, as at 10^b, and provided at its outer end with a coil 10^a. This wire 10 is slidably mounted in the aperture b' in the nozzle-rim b and with its coil end 10^a projected into the frame end of the wick, as best shown in Fig. 3, by reference to which it will be noticed the wire 10 is held in direct contact with the external surface of the wick-tube with its lower end in close proximity to the entrant end of the said tube and to project down into the oil or illuminant a desired distance. By my arrangement of the heat-contacting device it is manifest that by reason of its bearing on the outer side of the wick-tube C the radiated heat therefrom will be transmitted directly to the tube, the said tube kept warm, and the combustible agent, which is melted by a direct contact therewith of the wire 10, will be thereby the more evenly and uniformly drawn by the wick to the flame end, as the entire portion of the wick-tube inside of the nozzle is kept uniformly warm. Again, by bending the member 10 in the manner shown and passing it through the single aperture b' in the rim b the said member 10 has a tight frictional engagement

at one point with the rim *b* and at another point with the inner side of the nozzle, and by reason thereof the said member 10 can be conveniently adjusted—that is, drawn out or
 5 pushed in, as conditions of the oil may make desirable—and be automatically held by a frictional contact to its adjusted positions, and the coil end 10^a can thereby be fully or
 10 partially moved into the zone of the wick-flame.

The lamp-stick or picker device in my improved construction of lamp is formed of a single piece of spring metal bent upon itself to produce a ring or loop member 6 and hav-
 15 ing its ends bent back upon themselves in the manner clearly shown in Figs. 2 and 5, from which it will be noticed one of the members 6^a is longer than the opposing member 6^b and terminates in a pointed end 6^x for the easy
 20 insertion into the wall or other points where it may be desired to support the lamp, and the said pointed end also provides a convenient tool for picking the wick. The opposing member 6^b has a series of notches 6^c, whereby
 25 when the two parts 6^a and 6^b are slid into the slotted keepers 5^a 5^a the said notches will slip into engagement with the bridge ends 5^b 5^b thereof, and thereby lock the picker onto the lamp-body from accidental displacement.
 30 The keepers 5^a 5^a are an integral part of the metal block 5, soldered or riveted to the metal body A, as shown. To remove the picker or stick, it is only necessary to compress the members 6^a 6^b, whereby to disengage the
 35 notches 6^a from the members 5^b, when the said members 6^a 6^b can be readily pulled out from the keepers 5^a 5^a. The end of the member 6^b

is beveled off to form a convenient scraper for cleaning the insides of the lamp-body A.

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

1. In a miner's lamp, in combination with the lamp-body, the nozzle having a rim provided with an aperture, and the wick-tube
 45 projected through the said nozzle and extended down into the lamp-body; of a heat-contact member consisting of a spring-wire rod slidable through the aperture in the nozzle-
 rim and held in frictional contact therewith 50 and with the wick-tube at a point inside the nozzle, its upper end having a coil adapted to extend beyond the wick-frame, said rod being disposed parallel with and wholly ex-
 55 terior to the wick-tube, for the purposes described.

2. In a lamp of the character stated, the combination of a body portion having a nozzle and a wick-tube located within the nozzle, the latter having a rim through which the up-
 60 per end of the tube projects, said rim having a single aperture, a spring-wire rod bowed in the direction of its length and having a coil at the upper end, said rod being slidably
 65 mounted within the aperture in the nozzle-rim, held in frictional contact therewith and having bearing on the outer side of the wick-tube and the inner side of the nozzle, for the purposes described.

LAWRENCE J. HUSSON.

Witnesses:

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