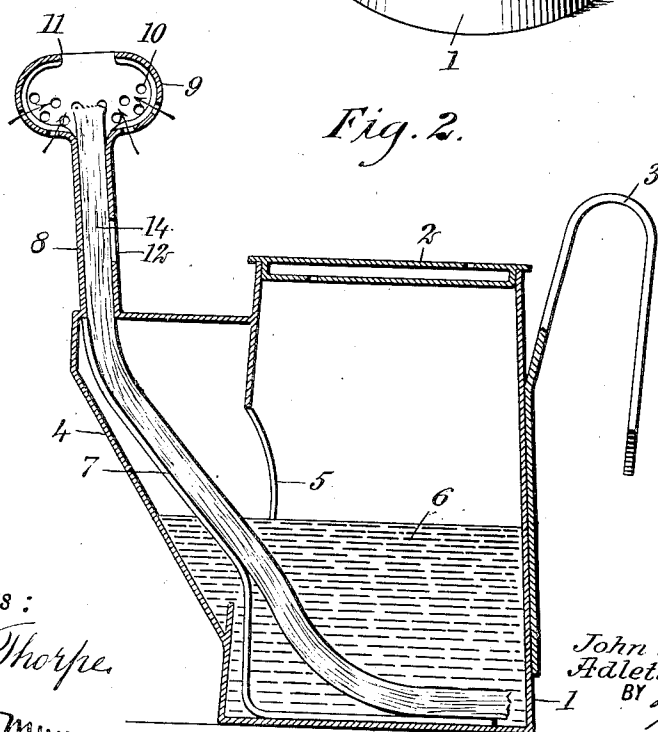
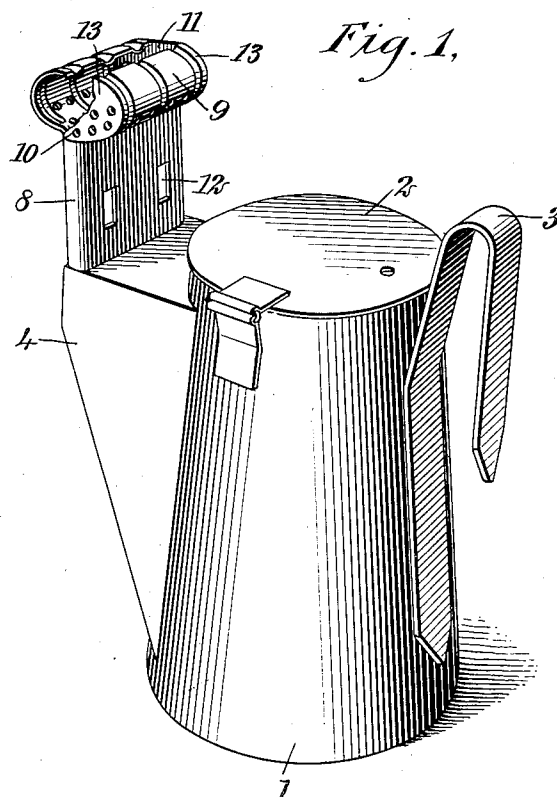


J. & A. M. VAN LIEW.
MINER'S LAMP.
APPLICATION FILED MAR. 31, 1909.

941,897.

Patented Nov. 30, 1909.



WITNESSES:
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UNITED STATES PATENT OFFICE.

JOHN VAN LIEW AND ADLETIA MAE VAN LIEW, OF HOUGHTON, MICHIGAN.

MINER'S LAMP.

941,897.

Specification of Letters Patent,

Patented Nov. 30, 1909.

Application filed March 31, 1909. Serial No. 487,032.

To all whom it may concern:

Be it known that we, JOHN VAN LIEW and ADLETIA MAE VAN LIEW, both citizens of the United States, and residents of Houghton, in the county of Houghton and State of Michigan, have invented new and useful Improvements in Miners' Lamps, of which the following is a full, clear, and exact description.

This invention relates to miners' lamps, adapted to burn wax, oil or other suitable fuels, and relates more particularly to the construction of the wick tube and burner.

The specific form of lamp illustrated is similar to that shown in the application of Adletia Mae Van Liew, Serial No. 465,645, filed December 2, 1908, but it is to be understood that our improvement may be applied to other forms of lamps than that shown.

The object of our invention is to provide a device of the class described, simple and serviceable in construction, which is provided with an improved form of combustion chamber whereby a uniform supply of air will reach the flame, thus obviating the production of smoke and other noxious gases.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in both views.

Figure 1 is a perspective view showing an embodiment of our invention, having a portion of the combustion chamber broken away; and Fig. 2 is a longitudinal section of our device.

In the specific form shown in the drawings, we provide a lamp, preferably cylindrical in form, and having a body 1 slightly tapered, the lamp being fashioned from any suitable material, such as sheet metal or the like, and provided with a hinged lid or cover 2. The body has a hook or hanger 3 by means of which the lamp can be movably attached to the cap or other part of the clothing of the user. Located on the side of the body remote from the hanger, is a tapered spout 4, communicating interiorly with the lamp body through a suitable opening 5, as shown most clearly in Fig. 2 of the drawings. Shaved wax or any other suitable illuminant, may be employed with our device.

Arranged within the spout and extending through the opening 5 of the lamp body

into the interior of the latter is a wick support 7, formed of an elongated strip of metal suitably bent for the purpose. This support also serves to conduct the heat from the flame to the fuel 6. The spout 4 has its upper portion 8 constricted to form a wick tube 8, the sides of the latter at the upper end thereof, being suitably enlarged to form a substantially cylindrical combustion chamber 9. The ends of this chamber are closed by means of end plates 13 which are secured in place by solder or other suitable means. The lower portions of the sides and ends of the combustion chamber are provided with a plurality of openings 10 through which air may pass to reach the flame, to cause more perfect combustion. The combustion chamber is further provided with an outlet 11, through which the flame passes. The wick tube 8 has a plurality of openings 12 on the side adjacent to the body of the lamp so that a sharp instrument, such as the blade of a knife, or the like, may be inserted therein, to feed the wick up into the combustion chamber.

In connection with our lamp, we preferably employ a wick 14, of any common or preferred form, which, as shown most clearly in Fig. 2, extends from the combustion chamber through the wick tube and spout into the body of the lamp. The upper end of the wick extends beyond the end of the wick tube into the combustion chamber. The cylindrical form of the combustion chamber prevents the flame from being blown out by wind, as the point of combustion is well within the chamber. Further, in the preferred form shown in the drawings, we have provided the combustion chamber with stiffening corrugations extending upwardly over the curved sides thereof.

It should be understood that we do not limit ourselves to the specific form of combustion chamber and wick tube shown in the drawings, as others equally advantageous may be employed without departing from either the spirit or the scope of the invention.

Having thus described our invention, we claim as new and desire to secure by Letters Patent:

1. A lamp having a metal wick tube, and a combustion chamber at the upper end thereof, said wick tube being oblong in cross section, and said combustion chamber

being substantially cylindrical in form and extending transversely of said tube with its ends adjacent the opposite edges of the tube, the opposite curved sides of said combustion chamber being spaced apart along their upper edges to leave a flame outlet, and formed integral with the opposite sides of said wick tube at their lower edges, said combustion chamber having stiffening corrugations extending upwardly over said curved sides and having a plurality of air inlet openings in the lower portions of said ends and curved sides.

2. A lamp having a sheet metal wick tube, and a combustion chamber at the upper end thereof, said wick tube being oblong in cross section, and said combustion chamber being substantially cylindrical in form and extending transversely of said tube with its ends adjacent opposite edges of the tube, the opposite curved sides of said combustion chamber being spaced apart along their upper edges to leave a flame outlet and being carried solely by said tube, said combustion chamber having stiffening corrugations extending upwardly over said curved sides and having a plurality of air inlet openings in the lower portions of said ends and curved sides.

3. A lamp of the class described, comprising a body for the fuel and provided with supporting means, a spout communicating

with the body and having a reduced wick tube extending upwardly therefrom, and provided with openings on one face thereof for the purpose set forth, a support for the wick extending from the outer side of the inner end of the wick tube into the body of the lamp, the free end of said wick tube having a substantially cylindrical combustion chamber arranged with its axis transversely of the tube, and provided on its upper side with a longitudinal opening, the said chamber having openings at the sides and ends thereof.

4. A lamp of the class described comprising a body for the fuel, a spout communicating with the body and having a reduced wick tube extending upward therefrom, and a support for the wick integral with the tube and extending into the body of the lamp, said tube being provided at its free end with a combustion chamber, whose walls are integral with the wick tube for the purpose specified.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JOHN VAN LIEW.

ADLETIA MAE VAN LIEW.

Witnesses:

REUBEN HATCH,
DORR KUIZEMA.