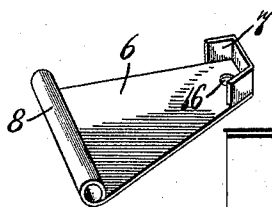
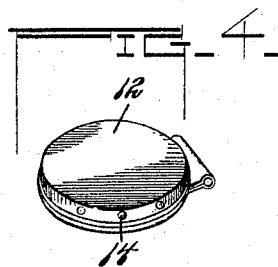
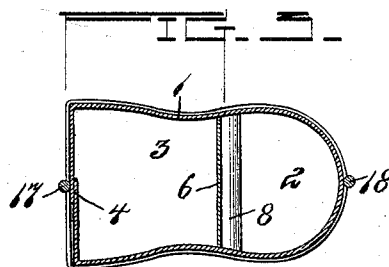
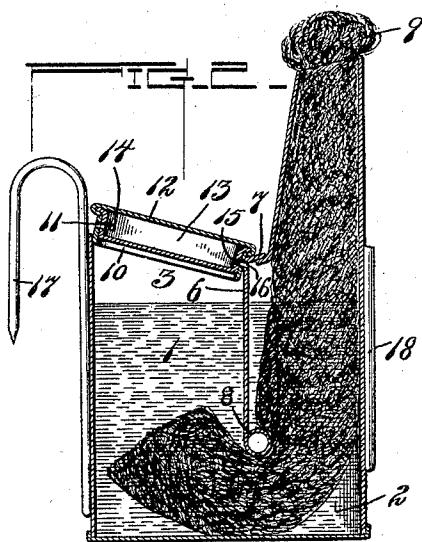
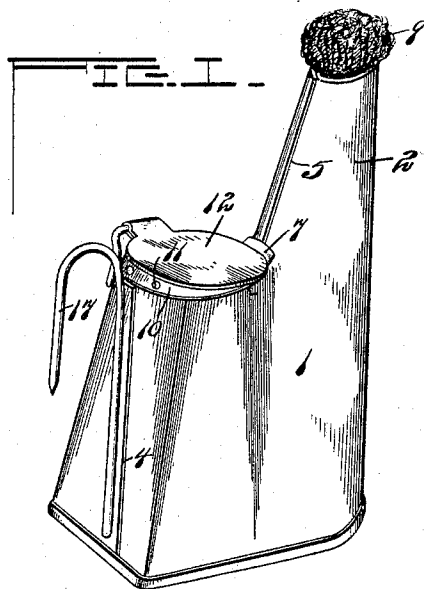


(No Model.)

C. H. HOBSON.
MINER'S LAMP.

No. 584,780.

Patented June 22, 1897.



Witnesses

Milton O'Connell,
R. M. Smith

By his Attorneys.

Charles H. Hobson,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

CHARLES H. HOBSON, OF MOUNT CARMEL, PENNSYLVANIA.

MINER'S LAMP.

SPECIFICATION forming part of Letters Patent No. 584,780, dated June 22, 1897.

Application filed August 14, 1896. Serial No. 602,778. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. HOBSON, a citizen of the United States, residing at Mount Carmel, in the county of Northumberland and State of Pennsylvania, have invented a new and useful Miner's Lamp, of which the following is a specification.

This invention relates to miners' lamps, and has for its object to provide a simple, cheap, and efficient lamp for use by miners, engineers, &c., the same being constructed in such manner as to afford a more brilliant and satisfactory light, producing less smoke and preventing the wasting of oil, while insuring the proper feeding of the oil through the wick to the point of combustion, and also insuring the proper supply of oxygen through the wick-tube to the flame.

To this end the invention consists in an improved miner's lamp embodying certain novel features and details of construction and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and incorporated in the claims.

In the accompanying drawings, Figure 1 is a perspective view of a miner's lamp constructed in accordance with the present invention. Fig. 2 is a longitudinal section through the same. Fig. 3 is a horizontal section of the same. Fig. 4 is a detail reverse perspective view of the hollow cap. Fig. 5 is a detail perspective view of the partition between the wick-tube and the oil-chamber.

Similar numerals of reference designate corresponding parts in the several figures of the drawings.

Referring to the drawings, 1 designates the main body of the lamp, which for the purpose of carrying out the present invention is constructed in the main from a single piece of sheet metal. A piece of metal of the proper shape is bent upon a curve at about its central portion to form a vertical wick-tube 2, after which the terminal portions of the metal are deflected and bent around to form the oil-chamber 3, the edges of the metal being finally brought together at the back of the oil-chamber, where they are lapped upon each other and soldered or otherwise united, as clearly indicated in Fig. 3, at the point 4. The central portion of the piece of sheet metal is extended vertically and bent around

so as to bring its edges together, as indicated at 5, they being lapped upon each other and secured so as to form a tapering or gradually contracting mouth to the wick-tube. It will thus be seen that the lamp is constructed practically in a single piece and that the joint formed by the lapped edges 4 is located at the point most remote from the flame and consequently subjected to the least possible degree of heat.

In approximately the central portion of the lamp-body is a vertical partition 6. (Shown detached in Fig. 5.) This partition extends vertically, or substantially so, within the lamp-body, and divides said body into two compartments, one of which consists of the wick-tube and the other the oil-chamber. This partition may be secured in place in any desired manner and is provided at its upper edge with a U-shaped flap or flanged portion 7, for the better securement of the partition to the top or neck of the lamp, at a point intermediate the upper portion of the wick-tube and the lid. The substantially U-shaped flange 7, which is arranged on the exterior of the body portion of the lamp at the top thereof, crosses the joint or lapped edges 5 and forms a clip to assist in holding the sides of the body of the lamp together. At its lower edge the partition 6 is deflected to form a cylindrical roll 8, constituting a drum around and under which the wick passes, thus insuring the free movement of the wick when the latter is drawn upward by means of the usual pick. The wick (indicated at 9) bulges inward above the roll or drum 8, and the latter thus serves as a support for upholding the wick and preventing the same jolting downward when in use.

The top wall of the oil-chamber is inclined, as clearly shown in Figs. 1 and 2, the same sloping from the rear of the lamp downward toward the wick-tube. This top wall is apertured and reinforced by means of a ring or circular band 10, having a series of air-ports 11.

12 designates a hinged cap, the same comprising double walls, as clearly shown in Fig. 2, thus forming an inclosed air-space 13. The peripheral wall of the cap 12 is provided with perforations 14, which register with the perforations or ports 11 when the lid is closed, so that a full supply of fresh dry air

is admitted to the interior of the cap. The cap and the ring or band 10 are both provided with registering air-ports 15 at the side adjacent to the wick-tube, and a port 16 in alinement therewith is formed in the partition 6, so that the air feeding in through the ports 11 and 14 will pass through the ports 15 and 16 and gain access to the wick-tube at the base of the upper contracting portion of the latter and at a point above the oil. In this manner air in sufficient quantity is admitted to the wick-tube and passes to the point of combustion without the necessity of puncturing the wick-tube itself and having the incident disadvantage of the leakage of oil. At the same time any oil which may accidentally pass back through the ports 15 and 16 will be prevented from escaping through the ports 11 and 14 by reason of the inclination of the cap 12.

17 designates the usual pointed hook by which the lamp may be applied to the miner's hat or clothing, and 18 is a reinforcing-piece of wire or metal for giving stability to the front portion of the lamp and preventing the same from being indented or injured by coming in contact with hard objects.

The lamp above described is simple and cheap in construction, affords a brilliant and satisfactory light, produces very little smoke, and prevents the wasting and leakage of oil.

It will be understood that the lamp is susceptible of changes in the form, proportion, and minor details of construction without departing from the spirit or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed, as new is—

1. A miner's lamp constructed in the main in one piece from sheet metal, the same being

bent at about its central portion to form a vertical wick-tube, the terminal portions of the metal being then bent to form a vertical oil-chamber, and the edges of the metal being then brought together and lapped at the back of the lamp and at the point most remote from the point of combustion, such lapped edges being united, combined with a partition arranged within the body of the lamp and provided at its top with an inverted-U-shaped flange arranged on the exterior of the body of the lamp at the top thereof, crossing the joint at the back of the wick-tube and forming a clip to prevent the sides of the body from separating at that point, substantially as and for the purpose described.

2. A miner's lamp, comprising a wick-tube, an oil-chamber, and an intermediate division-wall or partition having its lower edge rolled to form a drum around which the wick passes, said drum projecting into the wick-tube so as to form a shoulder for preventing the jolting down of the wick, substantially as described.

3. A miner's lamp comprising a wick-tube, an oil-chamber provided at its top with an air-port 11, an intermediate partition provided with an air-port 16, and a hollow cap arranged at the top of the oil-chamber and provided with air-ports registering with the air-ports 11 and 16, whereby an air-passage is provided extending from the wick-tube to the exterior of the lamp-body, substantially as and for the purpose described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

CHARLES H. HOBSON.

Witnesses:

JOHN E. BASTRESS,
J. B. KAUFFMAN.