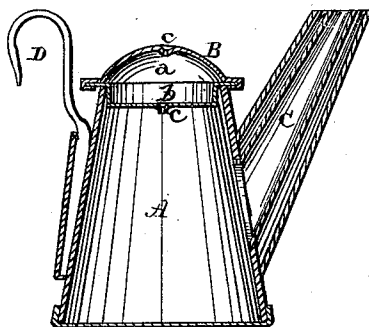


(No Model.)

J. VOGELE.  
Miner's Lamp.

No. 229,929.

Patented July 13, 1880.



WITNESSES =

W. W. Mortimer.  
Will. H. Kern.

INVENTOR =

Jacob Vogele,  
per  
F. A. Lehmann, atty.

# UNITED STATES PATENT OFFICE.

JACOB VOGELE, OF WILKINSBURG, PENNSYLVANIA.

## MINER'S LAMP.

SPECIFICATION forming part of Letters Patent No. 229,929, dated July 13, 1880.

Application filed March 24, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, JACOB VOGELE, of Wilkinsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Miners' Lamps; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawing, which forms part of this specification.

My invention relates to an improvement in miners' lamps; and it consists in making the lid or cover of the lamp with a convex top, and its bottom to extend down below the top of the lamp, thereby forming an air-chamber provided with holes shaped as described, and of sufficient capacity to prevent the oil which may run into this chamber while the miner is stooping over from being blown out in bubbles by the air that escapes from the lamp through the top, and at the same time to assist the return of any oil which may get into the chamber, as will be more fully described hereinafter.

The lids or covers of miners' lamps as heretofore made consist of two pieces—the upper or flat top and a stamped circular bottom piece with its upturned edge soldered to the under side of the flat top, leaving a small space between the two. The top piece, being somewhat larger than the bottom, presses, when the lamp is closed, on the upper edge of the lamp to keep oil from flowing out, and the bottom or under part of the lid closes the aperture of the lamp.

In the center of each bottom and top of the lid is a small round air-hole, admitting air to assist the flow of oil to the wick of the lamp. This is the form of lids on miners' lamps now in use, and when thus constructed the space between the flat top and bottom of the lid is necessarily very shallow, and when the lamp is inclined to one side or upturned the oil entering through the hole in the bottom, if it does not immediately run out through the corresponding hole in the top, remains for the time confined in this space, partly or wholly filling it. If now the lamp is again righted or its position changed, the oil confined between the top and bottom of the lid is, by the air underneath, blown upward and made to escape

in bubbles through the hole in the top. The oil thus ejected from the lamp runs down its sides and saturates the clothes and hat of the miner while at work. To prevent this is the object of my invention, hereinafter fully described.

The accompanying drawing represents my invention.

A represents a miner's lamp, which is provided with the lid or cover B. C is a wick-tube, and D the hook by which the lamp is suspended.

The circular lid B, which may be applied to the lamp in any suitable manner, is made of two parts—the top *a* and the bottom *b*. The top *a*, instead of being flat, is of a convex shape, like the form of a dome; but the bottom *b* is flat with an edge upturned at right angles, by which it is soldered or connected air-tight with the under side of the top. The bottom of the lid is of a diameter to exactly fit into the aperture of the lamp when the lid is pressed down, while the top *a*, being a little larger than the bottom, presses the upper edge of the lamp and precludes the oil from flowing out.

In the center of both the top and bottom parts of this lid there is made a hole, *c*, through which the air passes. These holes are made with a sharp-pointed instrument from the outer side of the top and the inner side of the bottom, so as to punch up the metal around each hole, as shown. This punched-up metal around the holes serves to check the outflow of oil from the body of the lamp through them, and at the same time facilitates the flow of any oil which may get into the cover back into the lamp again.

When the lid of a lamp is made as hereinbefore described no oil will flow or bubble out at the top, however much the lamp may be shaken, and the wick-tube, which has to be made of the same height as the lamp when not provided with my improved cover, may be made considerably higher, whereby the light is shed around in all directions instead of being confined to a small space in front of the miner.

I am aware that a shallow flat top has been made which has a conical pipe projecting far above its upper surface, and this construction is disclaimed.

Where the chamber is made to project above

the top in the shape of a tube the tube constantly catches against objects above and about the miner's head, and is apt to be broken or turn the lamp over.

5 By means of my recessed bottom, which projects down into the lamp, and the convex top, no more appreciable room is taken up, and yet the defects of construction in both of the lamps referred to are overcome.

10 Having thus described my invention, I claim—

A miner's lamp having a cover, B, consisting of the convex top *a* and the bottom *b*, which extends down below the top of the lamp

A, each part having an air-hole, *c*, punched 15 through it, as described, so as to form a rim around the hole to check the outward escape of oil and facilitate the flow of any oil which may get into the cover back into the lamp, substantially as shown and described. 20

In testimony that I claim the foregoing I have hereunto set my hand this 12th day of March, 1880.

JACOB VOGELE.

Witnesses:

T. F. LEHMANN,  
SAML. DIESCHER.