

J. JONZTA.

MINER'S LAMP.

APPLICATION FILED DEC. 27, 1910.

998,778.

Patented July 25, 1911.

Fig. 1

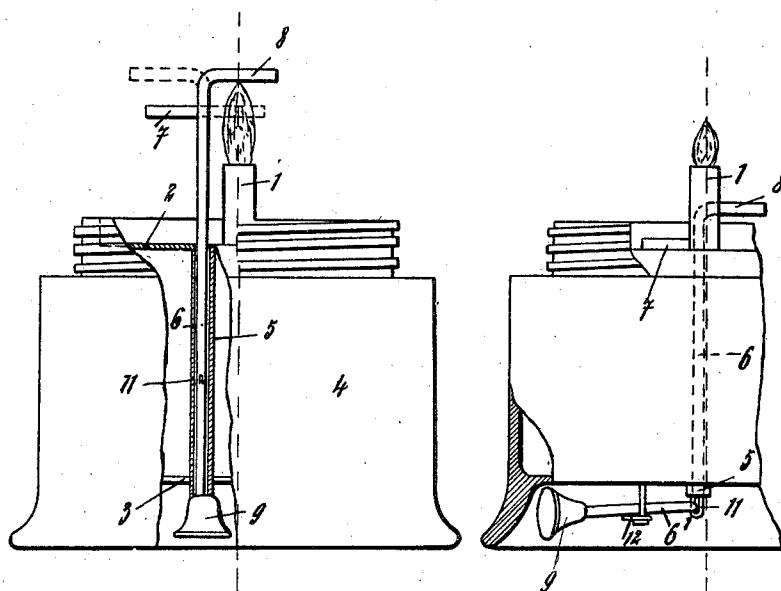


Fig. 3

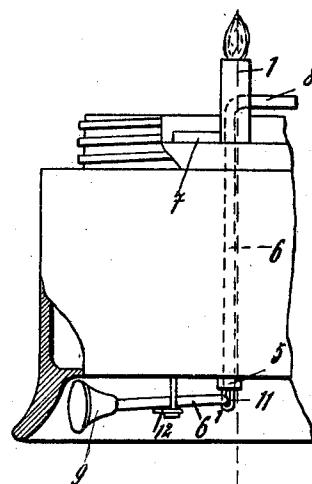


Fig. 2

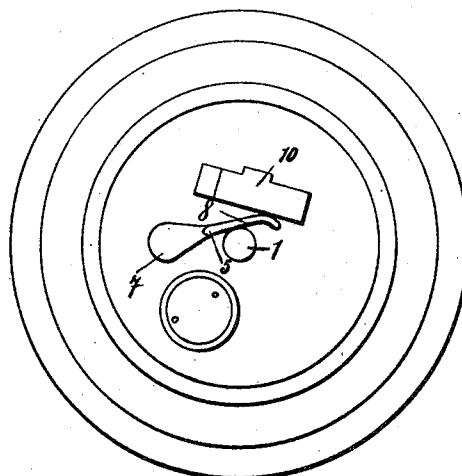
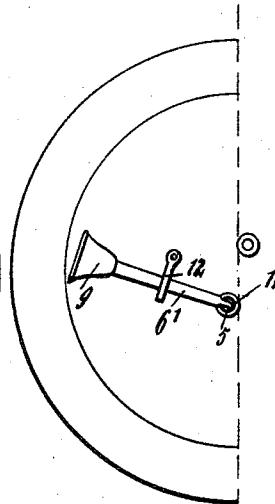


Fig. 4



Witnesses:

Randy Sacks.  
Att. full.

Inventor:

Josef Jonszta  
per William Markman  
Attorney.

# UNITED STATES PATENT OFFICE.

JOSEF JONSZTA, OF SILESIA, AUSTRIA-HUNGARY.

## MINER'S LAMP.

998,778.

Specification of Letters Patent. Patented July 25, 1911.

Application filed December 27, 1910. Serial No. 599,502.

To all whom it may concern:

Be it known that I, JOSEF JONSZTA, a subject of the Austro-Hungarian Emperor, and resident of Silesia, Austria-Hungary, have 5 invented Improvements in Miners' Lamps, of which the following is a specification.

As is well known the percentage of fire-damp in the air can be fairly accurately estimated by the height of the aureole, but 10 hitherto the miner has had to rely for this estimation on his own powers of observation which may be more or less highly developed. Since naturally this estimation is very unreliable, it appears desirable to provide a 15 device for attachment to miners' lamps, for accurately determining the height of the aureole. According to the present invention this is accomplished by means of pointers arranged at different heights on a pin 20 projecting through the pedestal of the lamp, which if desired can be brought into reach of the flame of the lamp, so that the height of the aureole can be accurately determined in all cases, and the percentage of fire-damp 25 determined therefrom. It is preferable to provide two indicators in opposite directions which can simultaneously serve as extinguishers or snuffers for the burned wick, in which case the rod must be revolvable 30 in the pedestal of the lamp and movable vertically.

In the drawing the subject of the invention is shown applied to a lamp of the Wolf type as an example.

35 Figure 1 is a side view of the lamp partly in section together with indicator; Fig. 2 is a plan of Fig. 1; Fig. 3 is a partial section showing the measuring device in the pedestal; Fig. 4 is an inverted plan of the lamp.

40 A tube 5 is soldered in the top 2 and bottom 3 of the lamp pedestal 4 to one side of the wick tube 1, and through the tube is led

a pin 6 which carries pointers 7 and 8 at its upper end. The lower end of the pin is provided with a head 9, serving as abutment 45 for the pin 6 when pushed up (Fig. 1) in which position the lower edge of the lower pointer 7 stands for instance 9 mm. above the mouth of the wick tube, which measurement corresponds to  $1\frac{1}{2}\%$  of fire-damp. 50 The upper edge of pointer 7 represents an aureole-height corresponding to 2% fire-damp, while the lower edge of the pointer 8 corresponds to an amount of fire damp of  $2\frac{1}{2}\%$ . The pointers 7 and 8 are preferably 55 arranged in opposite directions and turned into the light as required. In the example shown, the lower pointer 7 also serves as extinguisher, while the upper one 8 serves as snuffer for the burned wick. 60

When not in use, the pin 6 is pushed into the pedestal 4 until the pointer 7 lies on the top plate 2. In order that in this position the head 9 projecting below the bottom may not prevent the lamp from being set down, 65 this portion is hinged at 11 and can be turned up to lie against the bottom 3, and is held there by a clamp 12.

Having now fully described my said invention what I claim and desire to secure by 70 Letters Patent is:—

In a miner's lamp a pin fixed to the lamp body, pointers on said pin, a portion of said pin being adapted when not in use to be folded about a pivot against the underside 75 of the lamp, substantially as described and shown and for the purpose specified.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOSEF JONSZTA.

Witnesses:

ADA MARIA BERGER,  
AUGUST FUGGER.