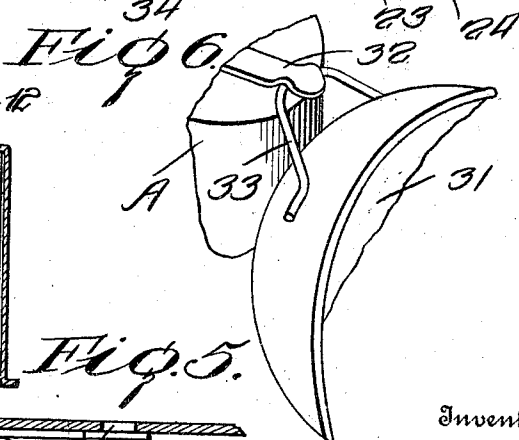
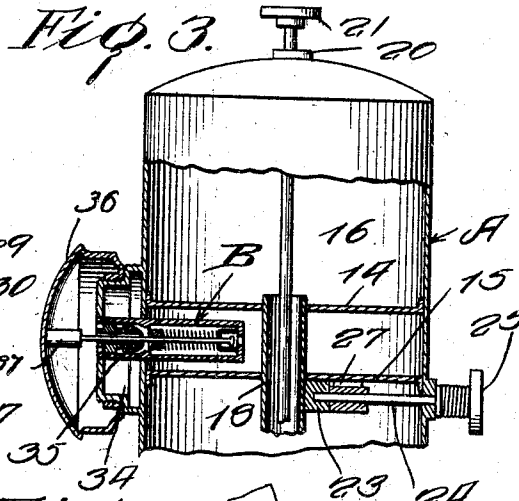
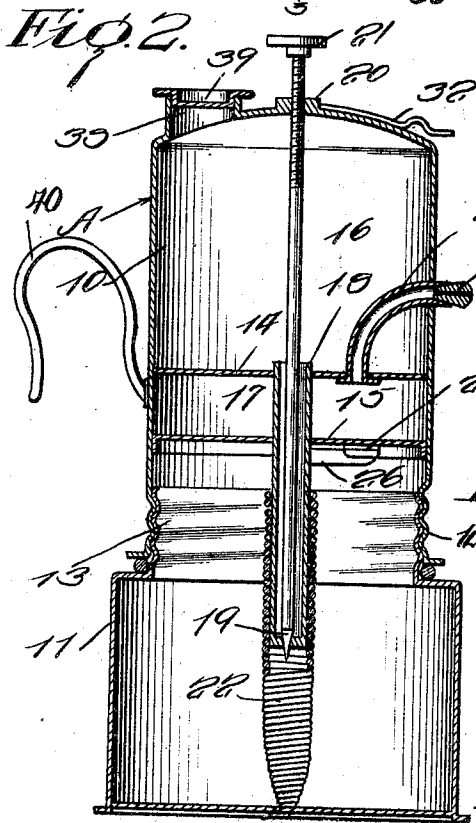
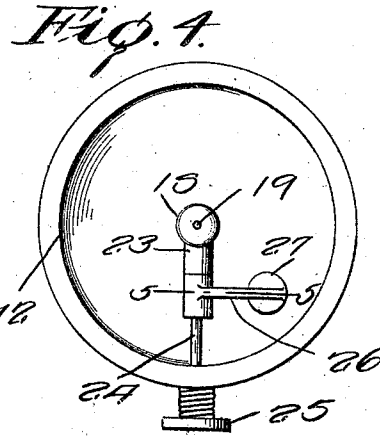
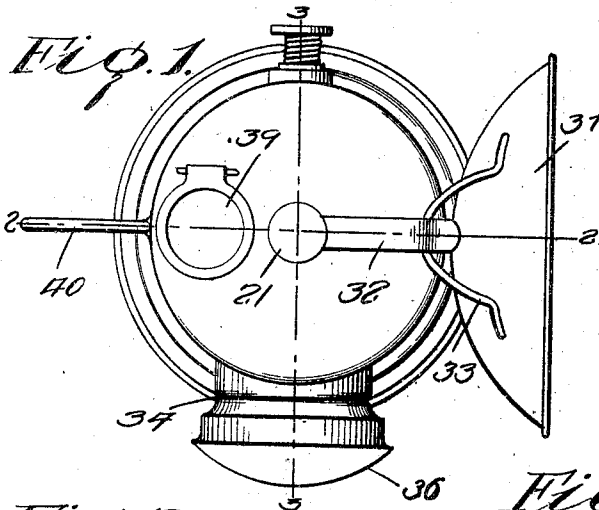


A. ZDANOWVICH.
ACETYLENE LAMP.
APPLICATION FILED JULY 15, 1912.

1,049,437.

Patented Jan. 7, 1913.



Witnesses
J. S. Mann
Henry D. Right

Inventor
A. Zdanowvich
Attorney

UNITED STATES PATENT OFFICE.

ANTONY ZDANOWVICH, OF ANTRIM, PENNSYLVANIA.

ACETYLENE-LAMP.

1,049,437.

Specification of Letters Patent.

Patented Jan. 7, 1913.

Application filed July 15, 1912. Serial No. 709,520.

To all whom it may concern:

Be it known that I, ANTONY ZDANOWVICH, a citizen of the United States, residing at Antrim, in the county of Tioga, State of Pennsylvania, have invented certain new and useful Improvements in Acetylene-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 appertains to make and use the same.

This invention relates to acetylene lamps and particularly to those of the portable type adapted for the use of miners.

The object of the invention resides in the provision of an acetylene lamp of the type referred to wherein the supply of gas may be maintained when the main supply of carbid has been exhausted thereby affording means for producing a light while the main supply of carbid is replenished.

With the above and other objects in view, the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully described and particularly pointed out in the appended claims.

In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters of reference denote corresponding parts in the several views, and in which—

Figure 1 is a plan view of an acetylene lamp constructed in accordance with the invention, Fig. 2, a partial section on the line 2—2 of Fig. 1, Fig. 3, a section on the line 3—3 of Fig. 1, Fig. 4, a bottom view of the upper section of the lamp, Fig. 5, a section on the line 5—5 of Fig. 6, a fragmental detail perspective view showing the manner of securing the reflector against rotation upon the lamp.

Referring to the drawing the lamp is shown as comprising a casing A which includes an upper section 10, and a lower section 11. The lower end of the section 10 is threaded as at 12 and into this lower threaded end of the section 10 is screwed the upper end 13 of the lower section 11. The section 10 is provided with upper and lower transverse spaced partitions 14 and 15 so as to divide said upper section into a water chamber 16 and a gas storing chamber 17. Extending through the central portion of the partitions 14 and 15 and depending

into the interior of the lower section 11 is a tubular member 18 the bore of which is adapted to be closed at its lower end by means of a needle valve 19 which is threaded in a boss 20 formed on the top of the section 10, said valve being provided with an enlarged upper end 21 disposed exteriorly of the section 10 whereby said valve may be conveniently operated to open or close the bore of the member 18. The lower end of the member 18 is protected against direct engagement with carbid contained within the section 11 by means of a spring 22 which encircles the lower end of the member 18 and has one end in engagement with the partition 15 and its other end in engagement with the bottom of the section 11. Formed on the lower side of the partition 15 adjacent the member 18 is a lug 23 and journaled in this lug 23 and the side of the section 10 transversely of said section is a shaft 24. The outer end of this shaft 24 is extended exteriorly of the section 10 and provided with a head 25 whereby the shaft may be manually rotated in a convenient manner. Fixed on the shaft 24 between the lug 23 and the side of the section 10 is an arm 26 which carries at its free end a stopper 27. Provided in the partition 15 is an opening 28 which is adapted to afford communication between the interior of the section 11 and the gas chamber 17. The position of the opening 28 with relation to the arm 26 is such that when the shaft 24 has been rotated to its limit in one direction the stopper 27 will be disposed against the partition 15 in closing relation to the opening 28 while the opposite rotation of said shaft, will move the stopper 27 away from the opening 28 so as to afford free communication between the interior of the section 11 and the gas chamber 17. Disposed within the water chamber 16 and having one end secured in the partition 14 and its bore in communication with the gas chamber 17 is a tubular member 29. The end of the member 29 remote from the partition 14 is directed laterally through the side of the section 10 and has mounted in the bore thereof exteriorly of the section 10 a burner 30. Engaged over the portion of the tubular member 29 which is disposed exteriorly of the section 10 is a reflector 31 which is held against rotation upon the member 29 by means of a spring clip 32 mounted on the

top of the section 10 and detachably engaging over a U-shaped member 33 secured to the rear of the reflector 31 and projecting inwardly toward the section 10.

5 Projecting laterally from the section 10 at substantially right angles to the burner 30 is a threaded tubular member 34 and in this tubular member 34 is another tubular member 35 the inner end of which is mounted
10 in the side wall of the section 10 so as to afford communication between the bore of the tubular member 35 and the gas chamber 17. Mounted in the bore of the tubular member 35 is a gas valve B of the type employed in the inflation of pneumatic tires.
15 This valve B will normally prevent gas from flowing from the chamber 17 outwardly of the tubular member 35. Threaded on the member 34 is a hood 36 which is provided with an inwardly disposed projection 37 adapted when the hood is screwed upon the member 34 to engage the valve B
20 and move the latter to open position so as to permit the passage of gas from the interior of the hood 36 to the chamber 17. An emergency supply of carbid is adapted to be stored within the hood 36 for a purpose that will presently appear. The top of the section 10 is provided with an opening 38
30 whereby the chamber 16 may be supplied with water and this opening 38 is adapted to be closed by a cap 39 suitably pivoted upon the top of the section 10. Mounted upon the side of the section 10 at a point diametrically opposite from the burner 30
35 is a hook 40 whereby the lamp may be engaged with the head gear of a miner.

In the use of the lamp under ordinary conditions the interior of the section 11 is provided with carbid and the chamber 16
40 with water, the valve 19 having been previously operated to close the bore of the member 18. The shaft 24 is then rotated to move the stopper 27 to open position with respect to the opening 28 and the valve 19 operated
45 to allow the water from the chamber 16 to pass into contact with the carbid contained within the section 11. The gas thus generated will pass through the opening 28 into the chamber 17 and thence through the tube 29 to the burner 30 where it is ignited and affords the desired light. When the supply of carbid in the section 11 has been exhausted the shaft 24 is rotated to move the
50 stopper 27 to closed position with respect to the opening 28 and the valve 19 closed. The hood 36 is then removed and the valve B adjusted so that the application of the hood will cause the projection 37 to open said valve. The carbid within the hood 36
60 is then moistened in any suitable manner and the hood applied when the gas generated within the hood will pass through the member 35 into the chamber 17 and thence to the burner 30 and thus maintain a

supply of gas for said burner while the section 11 is being recharged with carbid. The parts of the lamp are then readjusted to their initial position so that the burner 30 will be supplied from gas generated within the section 11. 70

It will be noted that the outer end of the valve B is threaded in the bore of the member 35 so that when said outer end is rotated in either one direction or the other it will be moved into or out of the bore of the member 35 and in this manner adjusted nearer or farther away from the projection 37 of the hood 36. 75

What is claimed, is:—

1. An acetylene lamp comprising a body, a carbid container for removable connection with said body, a pair of spaced partitions arranged in the body to form a water chamber and a gas chamber, the partition between the carbid container and the gas chamber being provided with an opening whereby the carbid container and the gas chamber are in communication, a valve controlling said opening, valve controlled means for supplying water from the water chamber to the carbid container, a burner disposed exteriorly of the body and communicating with the gas chamber, a tubular threaded extension mounted on the side wall of the body, a pipe arranged within said tubular extension and communicating with the gas chamber, a spring controlled valve normally closing said pipe, a carbid containing hood threaded on said tubular extension, and means carried by said hood for engaging the valve in the pipe when said hood is applied to the tubular extension to move said valve to open position and establish communication between the interior of the hood and the gas chamber of the body. 80 85 90 95 100 105

2. An acetylene lamp comprising a body, a carbid container for removable connection with said body, a pair of spaced partitions arranged in the body to form a water chamber and a gas chamber, the partition between the carbid container and the gas chamber being provided with an opening whereby the carbid container and the gas chamber are in communication, a valve controlling said opening, valve controlled means for supplying water from the water chamber to the carbid container, a burner disposed exteriorly of the body and communicating with the gas chamber, a tubular threaded extension mounted on the side wall of the body, a pipe arranged within said tubular extension and communicating with the gas chamber, a spring controlled valve normally closing said pipe, a carbid containing hood threaded on said tubular extension, means carried by said hood for engaging the valve in the pipe when said hood is applied to the tubular extension to 110 115 120 125 130

move said valve to open position and establish communication between the interior of the hood and the gas chamber of the body, and means for adjusting the valve in said pipe whereby the movement of same under the influence of the application of the carbide containing hood may be varied.

In testimony whereof, I affix my signature, in presence of two witnesses.

ANTONY ZDANOWVICH.

Witnesses:

JOSEPH ZIERNICKI,
JOSEF BATULIS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."