R. SEIPPEL.

MINER'S LAMP.

APPLICATION FILED JULY 22, 1909.

953,491. Patented Mar. 29, 1910.

Fig. 1

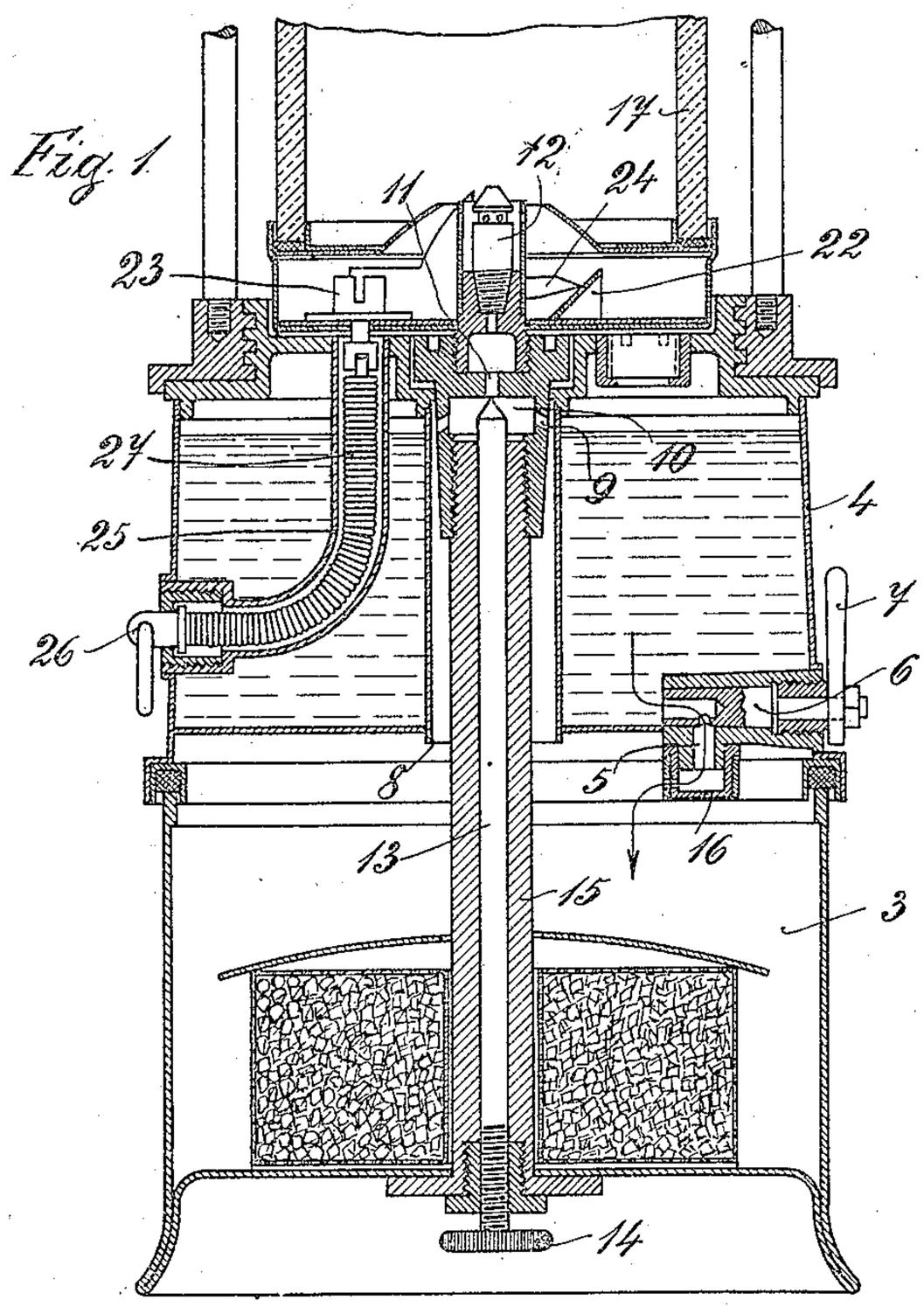
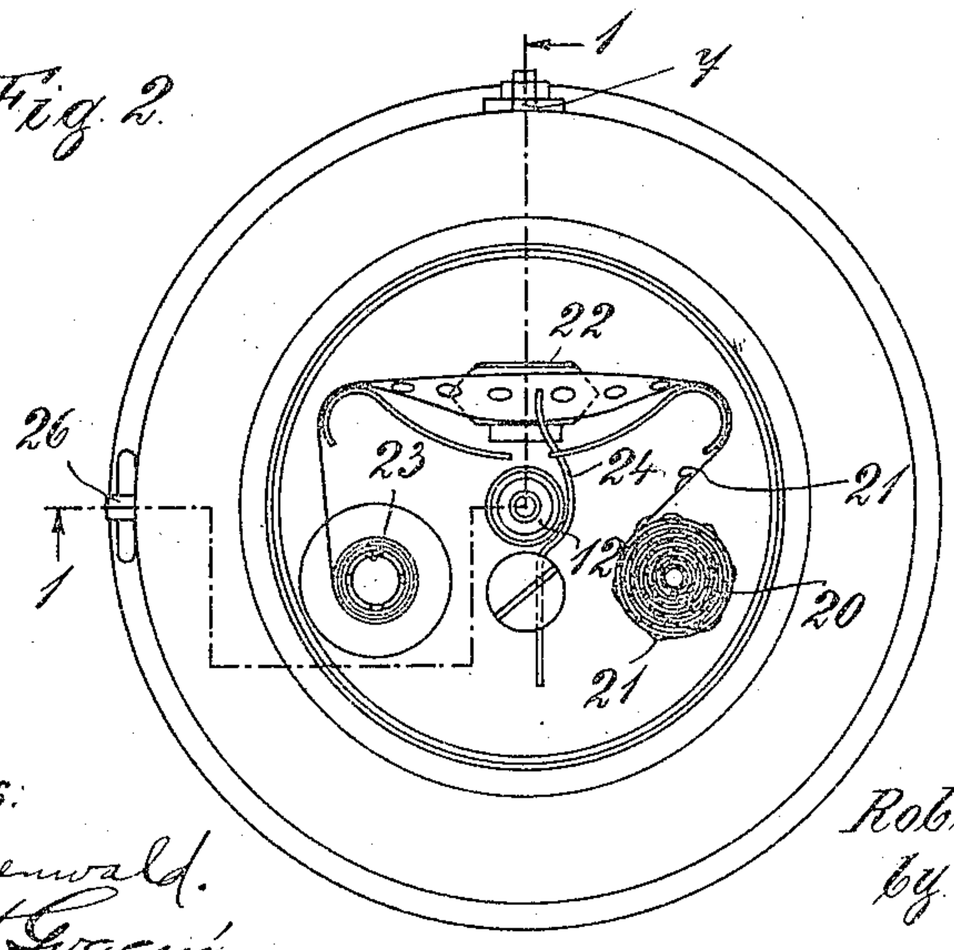


Fig. 2.



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UNITED STATES PATENT OFFICE.

ROBERT SEIPPEL, OF BOCHUM, GERMANY.

MINER'S LAMP.

953,491. Specification of Letters Patent. **Patented Mar. 29, 1910.**

Application filed July 22, 1909. Serial No. 508,901.

To all whom it may concern:

Be it known that I, ROBERT SEIPPEL, a subject of the King of Prussia, German Emperor, and resident of Bochum, in the Provence of Westphalia, German Empire, have invented certain new and useful Improvements in Miners' Lamps, of which the following is a specification.

This invention relates to miners' safety lamps for burning acetylene and its object is to provide an improved construction of safety lamp of this type.

The invention is illustrated by way of examples in the accompanying drawings, in which—

Figure 1 is a section through the lower part of a safety lamp according to the present invention. Fig. 2 is a plan of the lamp with the upper part of the cap removed to show the arrangement of the igniting device.

In carrying the invention into effect according to the form illustrated the lower part of the lamp is divided into two chambers. The lower chamber 3 forms a carbid holder and the upper chamber 4 forms the water holder. The upper chamber which is directly above the carbid holder is provided with a passage 5 leading to the carbid holder. This passage is controlled by a cock 6. The cock 6 is operable from the outside of the water holder by means of a handle 7. A scale may be provided on the side wall of the water holder to indicate the amount of opening and thereby enable the easy regulation of the water supply to the carbid. Leading from the upper end of the carbid holder 3 and passing centrally through the water holder there is a pipe 8. The acetylene generated in the holder 3 passes up through the tube 8 and then through ports 9 to a chamber 10. From this chamber the acetylene passes through the opening 11 to the burner 12. The opening 11 has at its lower end a valve seat which is adapted to be controlled by a spindle 13 extending downwardly through the pipe 8 and carbid holder 3 to be operated from the bottom of the holder by means of a milled wheel or the like 14. A guide tube 15 extending like a sleeve over the spindle 13 is provided.

The water passing through the passage or connection 5 enters into a drop cap 16 and from this drop cap it falls onto the carbid in the required quantities.

Arranged around the burner 12 there is a glass cylinder 17 and above this cylinder there are arranged the usual wire netting shields which have not been illustrated and form no part of the invention

The igniting device comprises in the form illustrated a band roll 20 which is provided at suitable intervals with caps 21 of a material which may be easily ignited by percussion. The band is guided over a plate 22 and then passes to a take-up roll 23. Bearing on the band where it passes over the plate 22 there is a spring 24. It will be seen that when the take-up roll is rotated the caps 21 are brought under the spring 24 and thereby ignited. The flame rising therefrom ignites the acetylene gas issuing from the burner. Such devices are known of themselves and the present invention relates to the method of operating the take-up roll 23. According to the present invention the take-up roll is coupled to a flexible shaft 27 which is inclosed within a tube 25 and is guided so as to pass through the side wall of the water holder to be operated by the handle 26. It will be seen that with the construction of the lamp described the separate regulation of the acetylene and water may be effected and the ignition device is very simply and easily operated.

I claim:—

1. In a safety lamp for acetylene gas of the type described, a carbid holder, a water holder directly above said carbid holder, a connection between said holders, a cock operable exteriorly from the side of said holders, a pipe leading upwardly from said carbid holder through said water holder, a burner at the upper end of said pipe, a control valve arranged in said pipe before said burner, said control valve being operable from below the carbid chamber.

2. In a safety lamp for acetylene gas of the type described in combination, a carbid holder, a water holder above said carbid holder, a connection between said holders, a cock in said connection, a centrally arranged pipe passing from said carbid holder

upward through said water holder, a burner communicating with said pipe at its upper end, a valve seating at the upper end of said pipe and at the entrance to said burner, a valve spindle passing downwardly through said pipe and carbid holder to be operated from the bottom of said carbid holder to control the supply of acetylene and a guide sleeve around said spindle where it passes through the said tube and carbid holder.

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

ROBERT SEIPPEL. [L. S.]

Witnesses:

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