C. V. MARTIN.

PLUMMET LAMP.

APPLICATION FILED MAY 1, 1912.

1,052,075.

Patented Feb. 4, 1913.

Fig. 1.

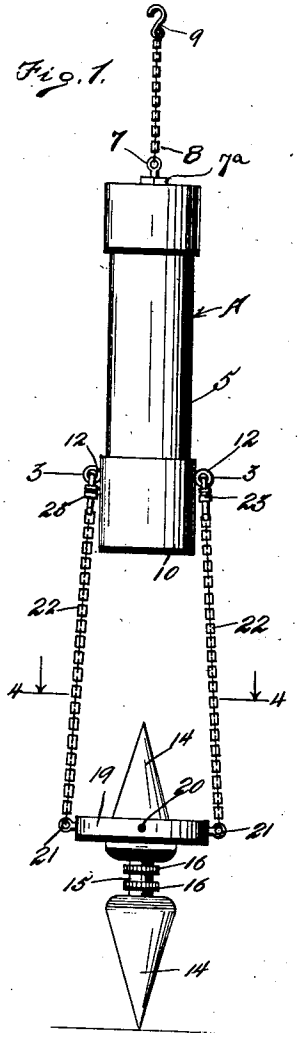


Fig. 3.

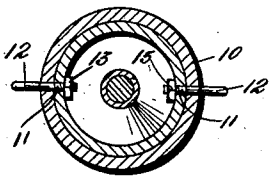


Fig. 2.

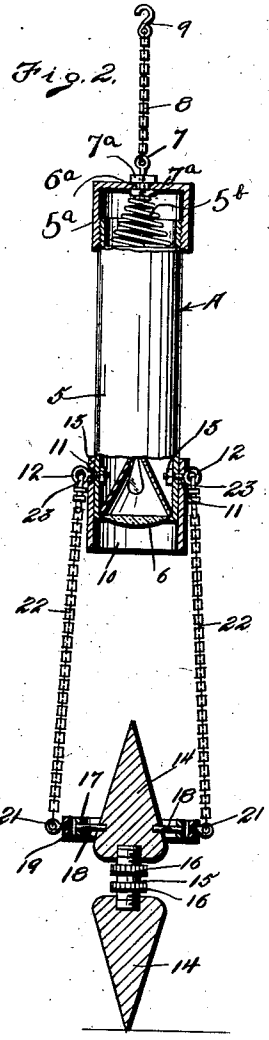


Fig. 4.

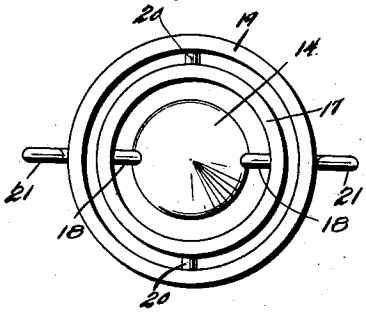


Fig. 6.

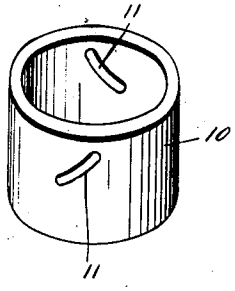
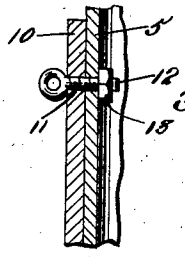


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

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PLUMMET-LAMP.

1,052,075. Specification of Letters Patent. Patented Feb. 4, 1913.

Application filed May 1, 1912. Serial No. 694,443.

To all whom it may concern:

Be it known that I, CLAUDE V. MARTIN, a citizen of the United States, residing at Zanesville, in the county of Muskingum, State of Ohio, have invented certain new and useful Improvements in Plummet-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 improvements in lamps of that type of lamps which are commonly known as plummet lamps.

The plummet lamps now in general use include large plummets and the bodies thereof constitute oil reservoirs for the wick lamps. This form of lamp does not give a sustained and steady flame of uniform shape and size. Furthermore, these lamps quite often give off smoke which greatly annoys the men who are using the lamp in a mine or the like and consequently greatly hinders the work to be done. At some places in a mine a point has to be set where the air circulates very poorly and as a result the flame from this type of lamp is very dim. This condition of the light causes surveyor too much trouble. Furthermore, after this lamp has been extinguished the wick remains hot and greasy and the lamp cannot be carried in the pocket until it has been drained.

The principal object of the invention is, therefore, to provide a plummet lamp which includes an electric lamp and a depending plummet, the lamp projecting a constant light of uniform density, and consequently being unaffected by either the lack of air currents or any sudden air currents which may occur.

Another object of the invention is to provide a plummet lamp of the character described which includes a novel means for either spreading the light or concentrating the same as it may be desired.

A further object of the invention is to provide a lamp of the character described, the parts thereof being adapted to be readily detached for the purpose of carrying the same in the pocket without danger to the clothes.

A still further object of the invention is to provide a lamp of the character described which is composed of a small number of parts, is therefore simple in construction, and is cheap to manufacture.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction within the scope of the claims may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing: Figure 1 is a side elevation of a lamp constructed in accordance with my invention, Fig. 2 is a longitudinal sectional view therethrough, parts thereof being shown in elevation, Fig. 3 is a detail cross sectional view taken on the line 3—3 of Fig. 1, Fig. 4 is a sectional view taken on the line 4—4 of Fig. 1, Fig. 5 is an enlarged detail sectional view showing the connection between the lamp and the sleeve, and Fig. 6 is a perspective view of the sleeve.

Like reference numerals designate corresponding parts in all the figures of the drawing.

Referring to the drawing, the invention comprises an electric lamp which is designated as a whole by the reference letter A. This lamp is of ordinary flash-light construction and the specific description thereof is not deemed necessary to be given. This lamp includes the usual casing 5 and lens 6, said casing being provided at the end opposite the lens 6 with a detachable closure element 5^a. Formed in the closure element 5^a is an opening 6^a through which the attaching end of an eye-bolt 7 projects. Inner and outer nuts 7^a are engaged with the inner end of the bolt, the opening having a greater diameter than the bolt for a purpose hereinafter described. Attached to the upper end of the bolt 7 is a suspending chain 8, the free end of said chain being provided with an attaching hook by means of which the lamp may be suspended as will be readily understood. Disposed within the casing 5 and bearing against the closure element 5^a is a helical spring 5^b which is adapted to yieldably urge the battery (not shown) for the lamp in its operative position. A sleeve 10 is slidably mounted upon the lens end of the casing,

and is provided with diametrically opposed inclined slots 11—11. This sleeve is frictionally held in any adjusted position upon the casing. Eye-bolts 12 each project through a respective slot 11 and through an opening formed in the casing. 5. Each bolt is secured by a nut 13.

My invention further comprises a pair of plummets 14—14, the butt ends thereof being disposed in opposed relation and connected by a threaded stem 15, said stems being centrally formed with a spaced pair of shoulders 16—16 having knurled peripheries for facilitating the turning thereof. These plummets are disposed vertically one above the other and disposed around the upper plummet is an inner gimbal 17, said plummet being swingingly connected thereto by means of diametrically opposed pins 18—18. An outer gimbal 19 is arranged around the inner gimbal 17, and is connected therewith by means of diametrically disposed pins 20—20, said pins being arranged at right angles with the pins 18. Outwardly projecting from the outer gimbal 19 and preferably in alinement with the pins 18 are eyes 21—21 which have connections with suspending chains 22—22, the upper ends of said chains being provided with hooks 23—23 for engagement with the eyes of the bolts 12. It will thus be observed that by means of these pins, the plummets are supported centrally below the lens 6.

From the foregoing, when it is desired to project the light over a considerable area the sleeve 10 is rotated in the proper direction and by means of the inclined slots 11, said sleeve will be drawn upwardly over the casing 5 and thereby permit the light rays to spread. When, however, it is desired to concentrate the light rays upon the plummets, the sleeve will be moved downwardly as far as desired, as will be readily understood. It will be observed that the chains 22 may be readily detached from the lamp A so as to enable a person to easily place the same in his pocket. It will furthermore be observed that by this form of lamp, there is no danger of either soiling or damaging the clothes of the operator. By forming the opening 6^a of the casing larger than the bolt, the true center to which the plummet is to be hanged can be easily ascertained and said bolt can be fixedly secured to the casing by means of the nuts 7^a. The function of the double plummet is to secure an illuminated point directly above the tip of the lower bob and point in the mine floor on which the surveyor can sight his transit.

What is claimed is:

1. In a plummet lamp, the combination of an electrically illuminated lamp including a casing, a plummet disposed therebelow, and flexible means connecting the casing and plummet.

2. In a plummet lamp, the combination with an electrically illuminated lamp including a casing and a lens arranged in one end thereof, of a sleeve mounted on the lens end of the casing for longitudinal adjustment, and a plummet suspended therebelow.

3. In a plummet lamp, the combination with an electrically illuminated lamp including a casing and a lens arranged in one end thereof, of a sleeve mounted on the lens end of the casing and having an inclined slot and pin connection therewith for longitudinal adjustment, and a plummet suspended therebelow.

4. In a plummet lamp, the combination with a lamp, of a pair of plummets disposed therebelow and arranged with their butt ends in opposed relation, a connection between the plummets, and suspending means for the plummets connected to the lamp.

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

CLAUDE V. MARTIN.

Witnesses:

W. O. SECREST,

EDWD. R. MEYER.