

WR PATENT NEWS # 2007-15

Patent US1081829 HIGGINS 1913 SIGHTING TARGET

Patent US287580 ROACH 1883 PLUMMET LAMP

Patent US792944 STOW 1905 PLUMB BOB SUSPENSION HOOK

Patent US1231925 Mc KAY 1917 LAMP

Patent US1052075 MARTIN 1913 PLUMMET LAMP

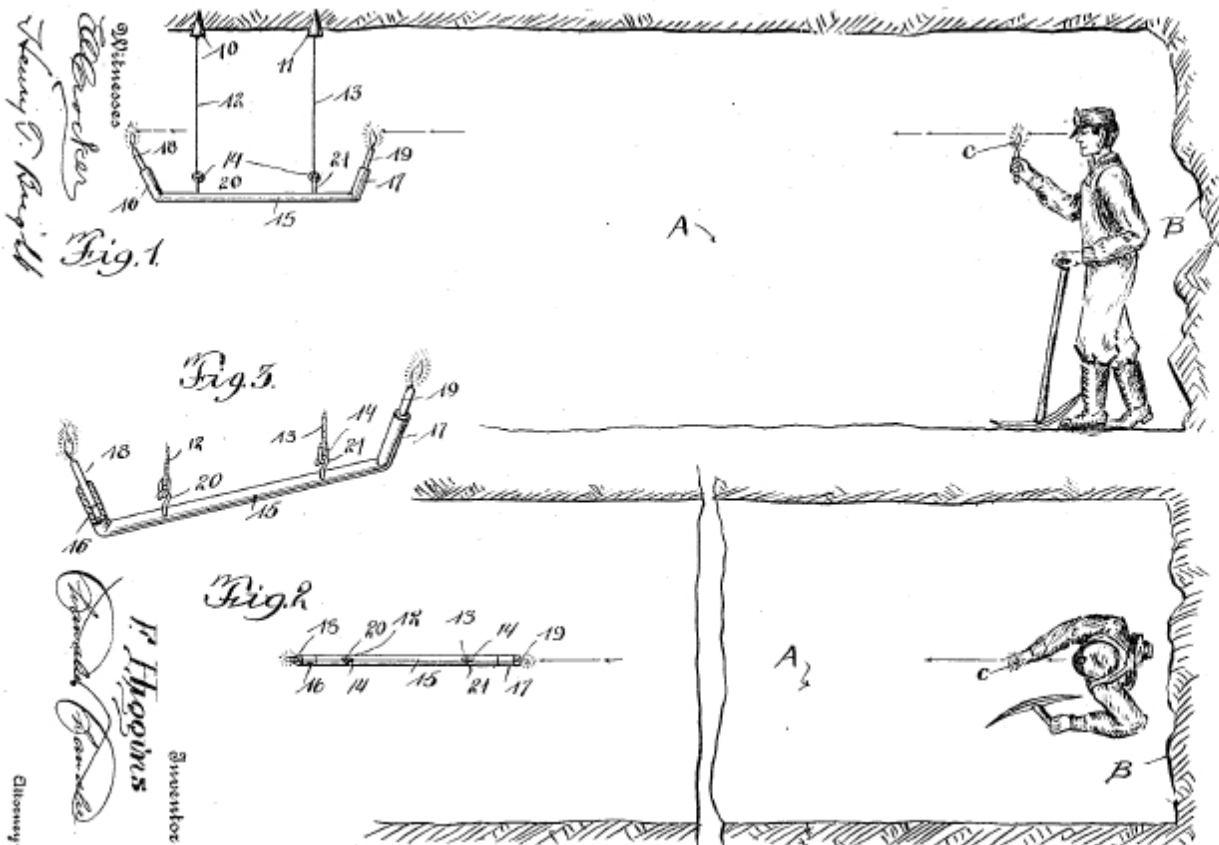
Patent US1113519 WALLACE 1914 PLUMB LIGHT

Today I will talk about "MINING PLUMB BOBS".

Each plumb bob collector has in his own "rarity index" a lighting MINING PLUMB BOB. In reality these plumb bobs are not usual plumb bobs to show the vertical line, but LIGHTED TARGETS or BACKSIGHTS that can also plumb down if necessary.

The evolution goes from oil burned wicks over reflecting items and battery powered lamps to laser rays.

The situation underground and the darkness in the mines show the drawings from the HIGGINS patent US1081829 from 1913 and some other pictures:



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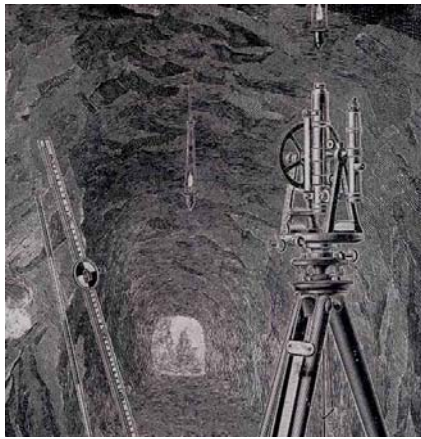


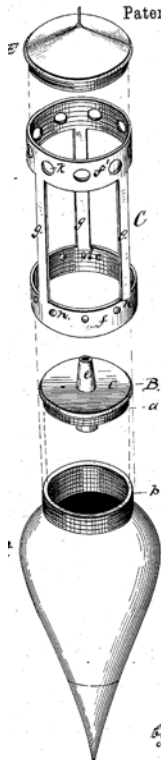
Fig. 156. Experimentation in the Galleries by Yank. (Hager), in Egypt

The oldest patent I found is US287580 ROACH 1883 PLUMMET LAMP:

Here we find a lamp filled with oil or other burning fluid. The steady clear flame from a wick is protected by a lantern-frame with glass. His invention:

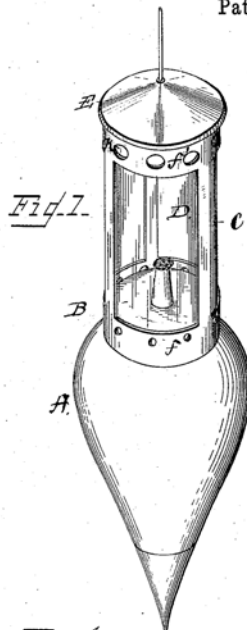
My invention has relation to improvements
in plumb-bobs, and is especially directed to
provide an instrument of the kind named to
15 to be used in places and under circumstances
excluding the sun's light; hence the object of
the invention is to construct an illuminated
plumb-bob, by which the line of perpendicu-
larity may be ascertained or shown by the di-
20 rection of the flame of a lamp properly pro-
tected and controlled.

J. ROACH.
PLUMMET LAMP.
Patented Oct. 30, 1883.

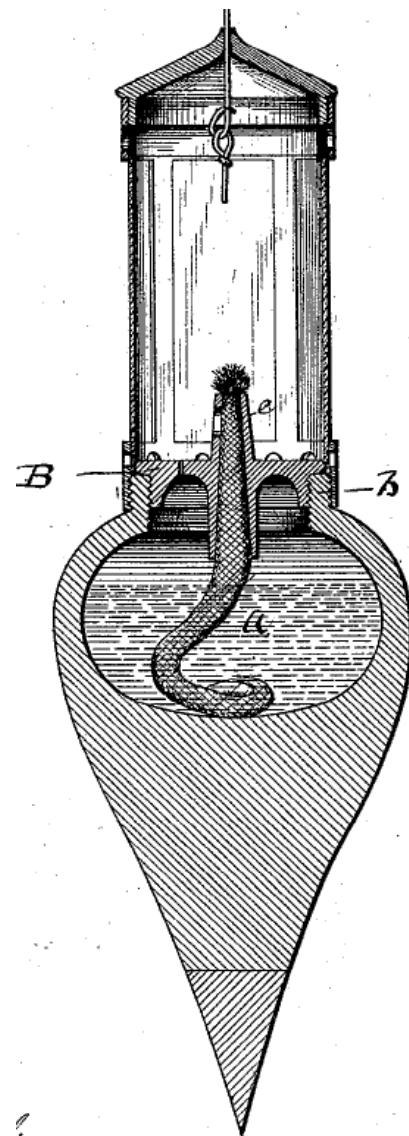


(rel.)
87,580.

J. ROACH.
PLUMMET LAMP.
Pat



INVENTOR
John Roach
by Heymann & Co
Attor.



No. 792,944.

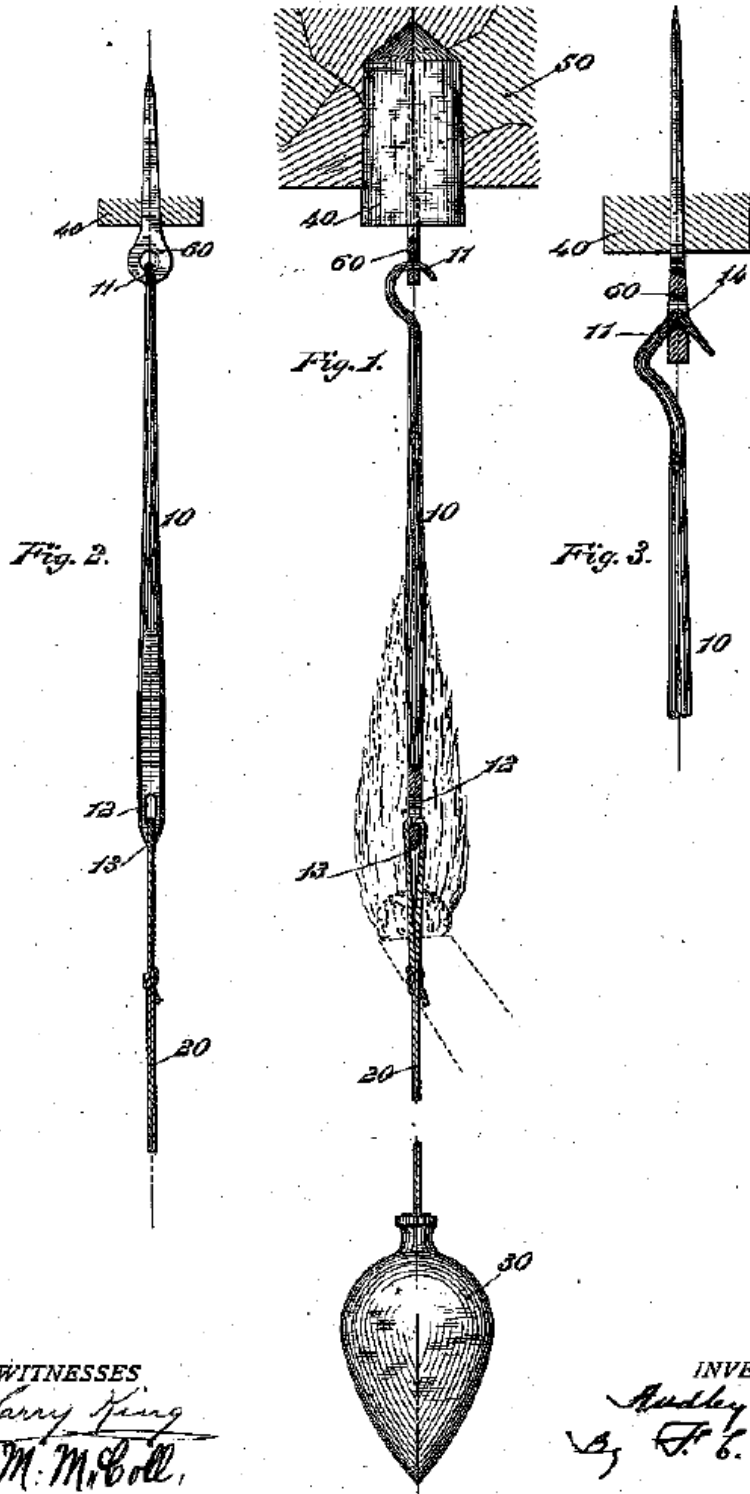
PATENTED JUNE 20, 1905.

A. H. STOW.
PLUMB BOB-SUSPENSION HOOK.
APPLICATION FILED NOV. 28, 1904.

The "SIMPLE VERSION" of a lighted target is the patent US792944 STOW 1905. "adapted for coal mines". It is an iron hook that is placed near the ceiling. (More stable than a long hook).

Behind this hook the miner holds the flame of a miner's lamp.

The invention says: "The hook has a better surface for the bisection of the cross-wire than the plumb bob itself".



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The LAMP of US1231925 Mc KAY 1917 has a GAS GENERATOR:

G. R. McKAY.
LAMP,
APPLICATION FILED JAN. 27, 1917.

To all whom it may concern:

Be it known that I, GUY R. McKAY, a citizen of the United States, residing at Park City, in the county of Summit and State of Utah, have invented a certain new and useful Improvement in Lamps, of which the following is a full, clear, and exact description.

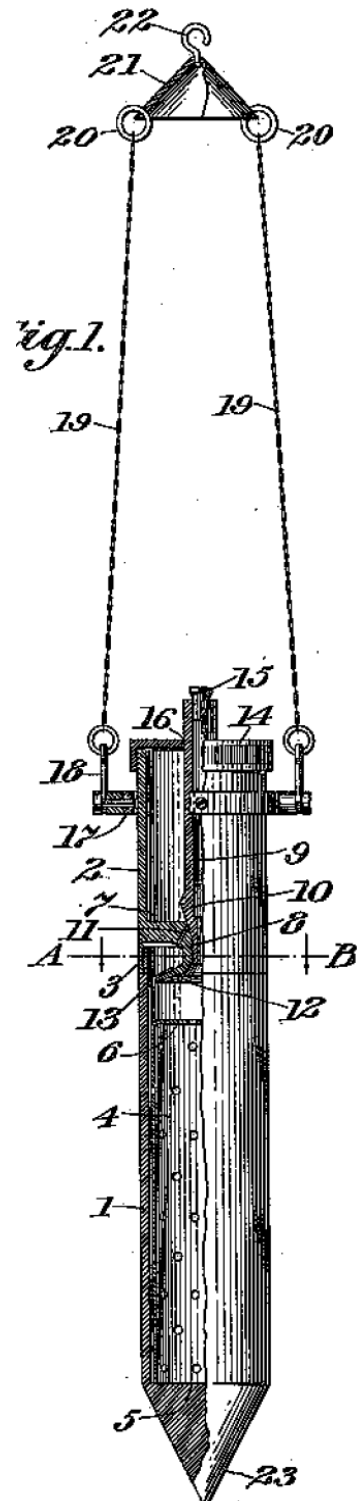
The object of this invention is to provide a lamp especially useful as a back sight lamp in mine and tunnel or other underground surveying.

Without thereby limiting the invention, but in order to furnish a concrete example illustrating the same, the invention may be stated to consist of a gas generator from which the gas is supplied to a burner, the generator and burner being capable of being suspended preferably in a self-leveling manner and the burner protected from contact of outside water, as I will proceed now to explain and finally claim.

The lower point of the casing is tapered, as at 23, so that the lamp may be used as a plummet. Some mining engineers carry their survey points in the floor instead of in the roof or timbers, and with a lamp of this character provided with the conical bottom, it can be suspended accurately over the point.

When the lamp is not in use the tube 9 is screwed down so that its tapered portion 10 will close the ducts and thus prevent the escape of the exciting fluid into part 1 and the consequent generation of gas. The reverse movement of the tube admits the water to part 1.

The lamp thus furnishes a self-illuminating back sight lamp, and dispenses with the service of one man in an underground surveying party.



PATENT NEWS especially for PLUMB BOB COLLECTORS

On ebay we find sometimes MINING PLUMMETS from HELLER & BRIGHTLY and YOUNG & SON or from England LMSD. Also we find well made reproductions of these types. Here are some pictures from mining plummets:



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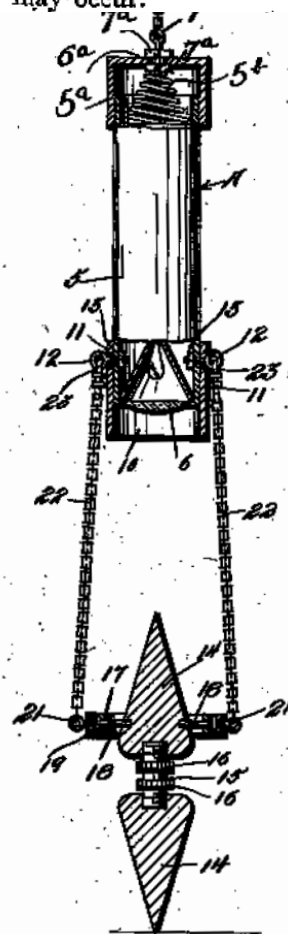
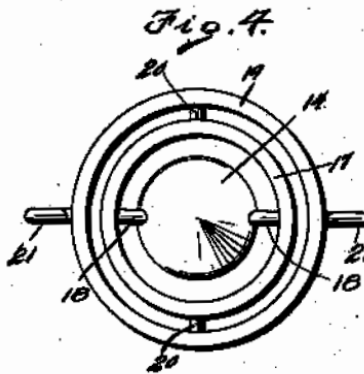
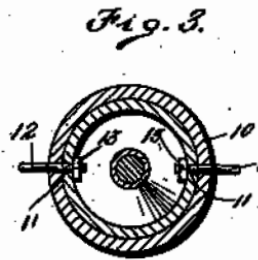
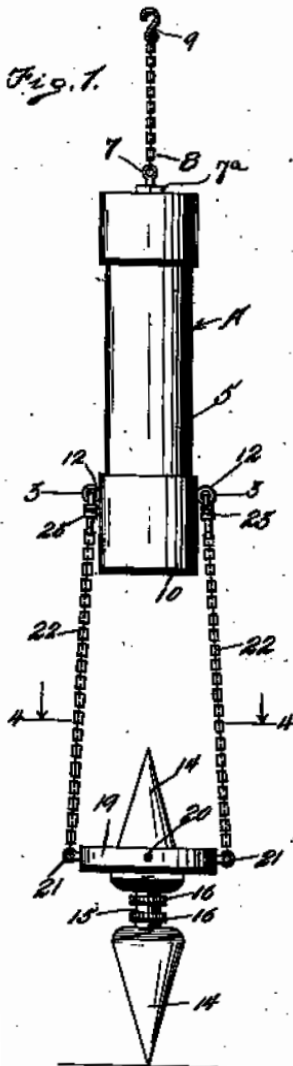
In the same period we have two examples of BATTERY POWERED plummet lamps:

First

US1052075 MARTIN 1913 PLUMMET LAMP

C. V. MARTIN.
PLUMMET LAMP.
APPLICATION FILED MAY 1, 1913.

1,052,075.



This invention relates to improvements in lamps of that type of lamps which are commonly known as plummet lamps.

15 The plummet lamps now in general use include large plummet reservoirs 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.

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35 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.

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PATENT NEWS especially for PLUMB BOB COLLECTORS

Also BATTERY POWERED is US1113519 WALLACE 1914 PLUMB LIGHT

D. A. WALLACE.

PLUMB LIGHT.

APPLICATION FILED APR. 21, 1913.

Patented Oct. 13,

2 SHEETS-SHE

One part of the invention is to attach the plumb light PERMANENTLY to the roof. (see drawing). If you visit next time a mine, perhaps you will still find one ☺ !!

1,113,519.

Heretofore in making mining surveys the line of sight has been determined by an oil lamp or candle suspended from the top wall or roof of the tunnel. Permanent points in such a traverse are not only difficult to find, but difficult of description, such that in event of the mine being resurveyed at a later time, great difficulty is experienced in locating the points of the former traverse to check or correct the same.

This invention relates to means for permanently marking a traverse and facilitating accurate chaining of the same.

This invention has for an object, means for permanently marking the points of a traverse and the proper elevation thereof.

Fig. 3

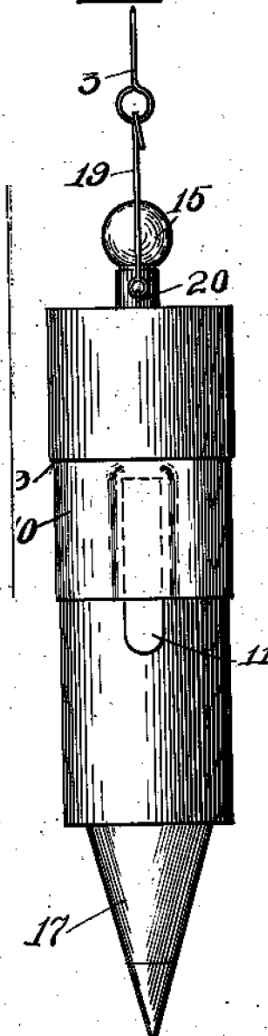


Fig. 4

