

PATENT NEWS ESPECIALLY FOR PLUMB BOB COLLECTORS

WR PATENT NEWS # 2007-17

Today I will talk about SURVEYORS ILLUMINATED BACKSIGHT.

See also WR Patent News #2007-15 Mining plummet/lights

US2538475 SKRASTIN 1951 Surveyor's illuminated backsight

German patent **DE441880 KÖPLITZ + DOMINIT 1927** target

French patent **FR547411 DACHEUX 1922** lighting plumb bob

British patent **GB 190900525 PATTERSON 1909** gas detecting lamp

American patents **US1101375 WUTH 1914** target for plumb bob strings

US1227631 KOLESCH 1917 Surveyor's target

In March 2007 I could win on Ebay a SKRASTIN tool: Unfortunately the 3 batteries were after 50 years out of order and I could not get them out of the tube. So I had to drill them out.....



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16, 1951

F. J. SKRASTIN, JR

2,538,475

SURVEYOR'S ILLUMINATED BACKSIGHT

Filed Aug. 13, 1948

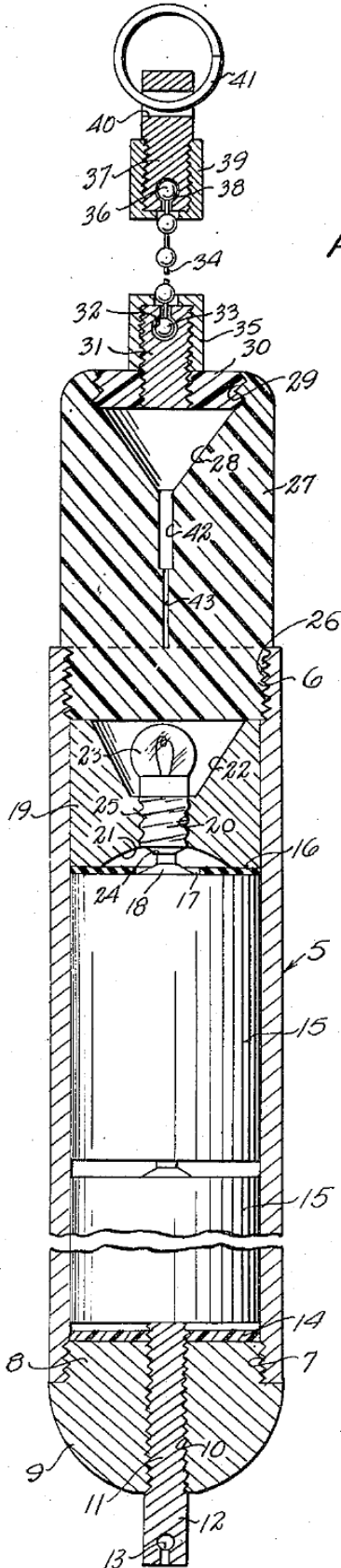


FIG. 1.

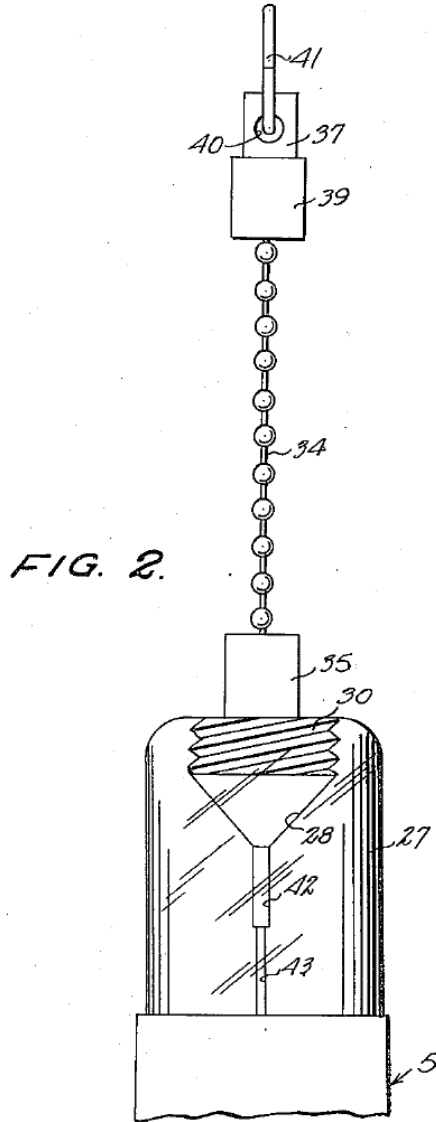


FIG. 2.

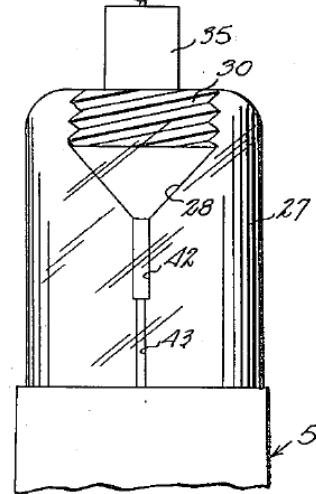
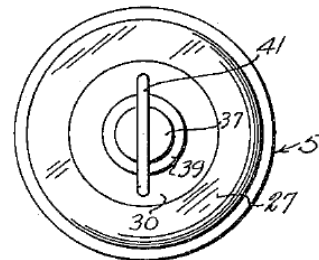


FIG. 3.



INVENTOR.
FRED J. SKRASTIN, JR.
BY

McCormack, Berman + Davidson
ATTORNEYS. 7-17.doc

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Some objects of SKRASTIN are:

This invention relates to an illuminated backsight for use by surveyors in night surveying work or when surveying in unilluminated places like mines, tunnels, and the like, the primary object of the invention being to provide a practical and efficient self-luminous backsight upon which the cross hairs of the transit telescope can be easily centered from different remote locations around the sides of the backsight, the backsight being adapted to be suspended at a known point in the area to be surveyed, so that surveyors can measure the angle between the backsight and the next station.

Another important object of the invention is the provision of a device of the above indicated character having a luminous sight head of transparent plastic capable of internal transmission of light supplied to the head from an electric bulb energized by dry batteries contained in the device, whereby visibility of the device is enhanced and whereby the sight marks within the head are made to stand out in contrast to the head.

Description+ modification for using in windy places:

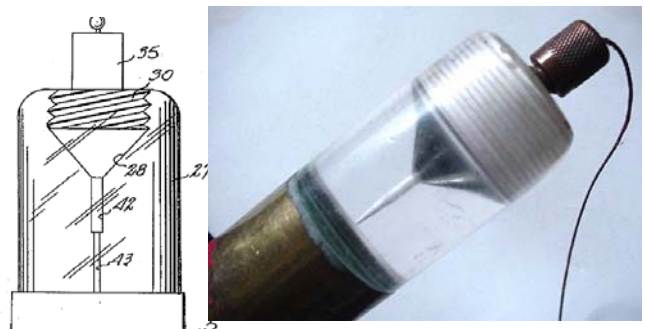
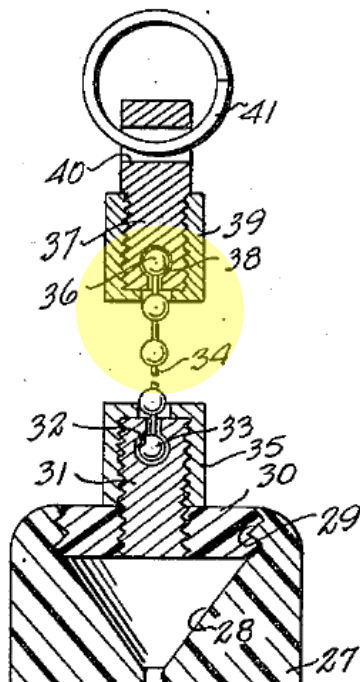
Figure 3 is a top plan view thereof.

Referring in detail to the drawings, the numeral 5 designates the elongated preferably brass tube constituting the body or casing of the illustrated device, the upper and lower ends being internally threaded, as indicated at 6 and 7, respectively. Into the lower end of the casing is threaded the boss 8 on a dome-shaped, preferably brass cap 9, having a threaded axial bore 10, through which is threaded the brass switch screw 11 having a squared lower end 12 formed with a key-hole opening 13 to receive a key or tool (not shown) for turning the screw and to enable attaching metal weights when needed in windy places. The screw can be turned up to put the upper end of the screw 11 through an insulator disk 14 to engage the lower end of the lowermost

One of his CLAIMS:

4. A luminous surveyor's backsight comprising a luminous head formed of transparent material capable of internal transmission and reflection of light rays impinged upon one end thereof, axially extending means in said head arranged to be illuminated to greater brilliance than the remainder of said head by light rays impinged thereon to provide sight mark means, a tubular casing secured to depend from the lower end of said head, a bulb reflector in said casing immediately below and facing the lower end of said head, an electric bulb mounted in said reflector whereby light rays from said bulb and from said reflector are impinged upon the lower end of said head when said bulb is energized, battery means within said casing below said reflector, a cap on the lower end of said casing retaining said battery means in said casing, switch means having an operating member on said cap for connecting said bulb in circuit with said battery means to energize said bulb, and means connected to the upper end of said head in axial alignment with said sight mark means for suspending said backsight from an overhead support, the upper end of said head being formed with an axial conical depression acting as a reflector to reflect laterally outwardly within said head light rays transmitted upwardly through said head from said bulb for intensifying the luminosity of said sight mark means, a transparent plug closing the upper end of said conical depression, said suspending means being supportably connected with said plug for suspending the backsight.

The top is specially designed for a chain, not a string



FREDERICK J. SKRASTIN, JR.

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DEUTSCHES REICH

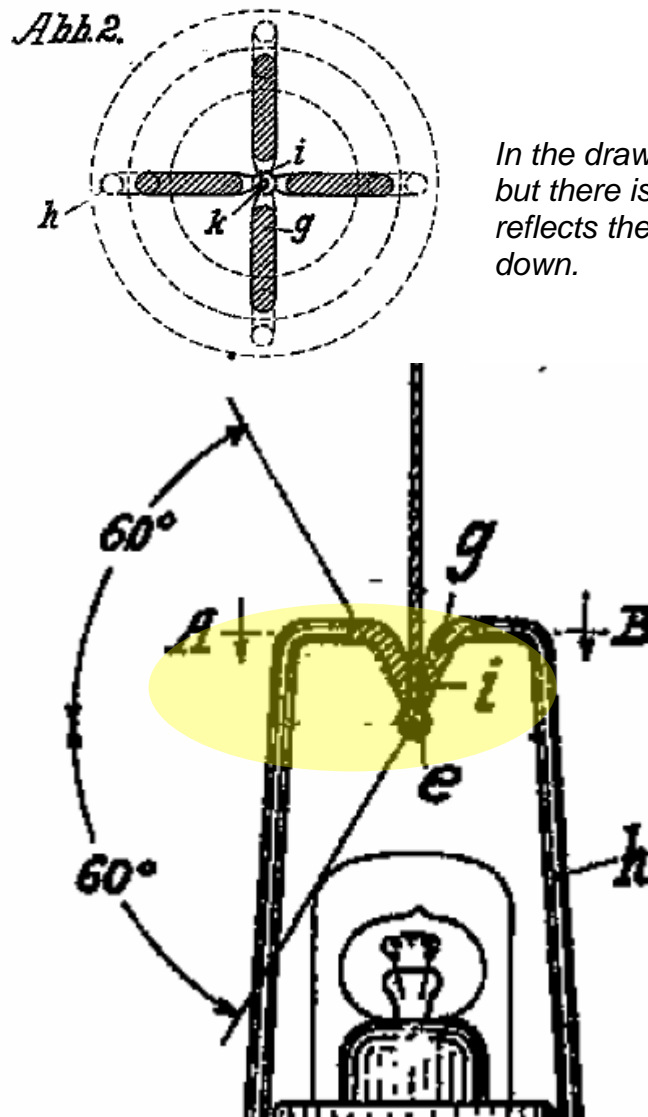
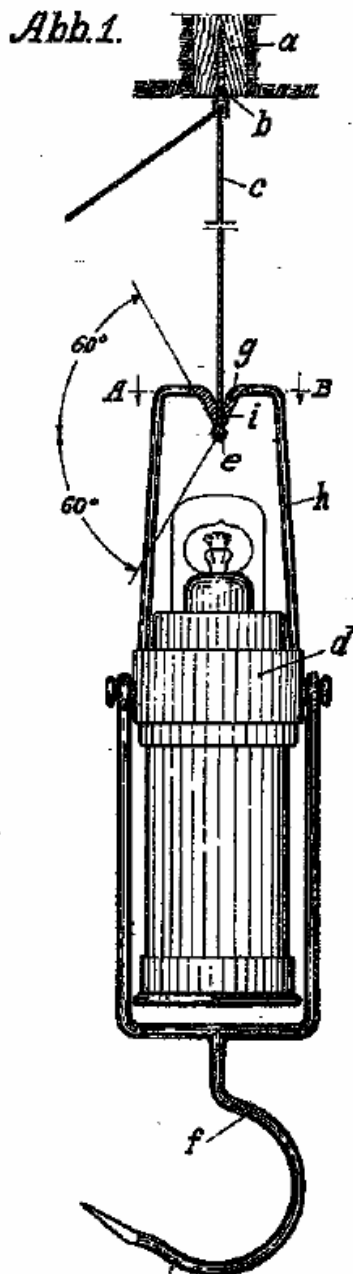
REICHSPATENTAMT
PATENTSCHRIFT
№ 441 880
KLASSE 42c GRUPPE 10
K 95981 LX/49c

AUSGEGEBEN AM
29. JULI 1927

The German patent DE441880 KÖPLITZ + DOMINIT 1927 shows a typical German miners lamp with a special installation to reflect the light:

Dr. Wilhelm Köplitz in Börnig b. Herne.

Vorrichtung zum Kenntlichmachen eines Zielpunktes.



In the drawing it is not easy to see, but there is a ball in the middle that reflects the light 60 degrees up and down.

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The French patent FR547411
DACHEUX 1922 shows a plumb bob
with light:

N° 547.411

M. Dacheux

I already mentioned it in
WR PATENT NEWS 2007-08

RÉPUBLIQUE FRANÇAISE.

OFFICE NATIONAL DE LA PROPRIÉTÉ INDUSTRIELLE.

BREVET D'INVENTION.

XII. — Instruments de précision, électricité.

3. — POIDS ET MESURES, INSTRUMENTS DE MATHÉMATIQUES, COMPTEURS
ET PROCÉDÉS D'ESSAI.

N° 547.411

Fil à plomb à indications lumineuses.

M. FRANÇOIS-RENÉ DACHEUX résidant en France (Nord).

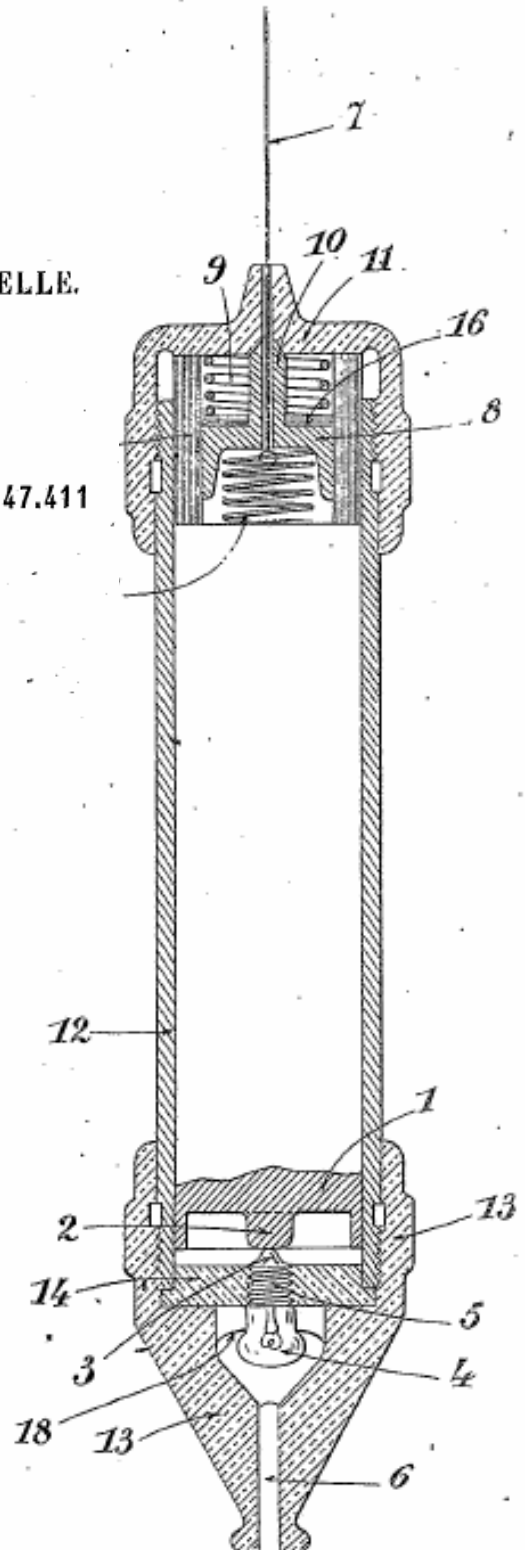
Demandé le 17 février 1922, à 16^h 30^m, à Paris.
Délivré le 20 septembre 1922. — Publié le 12 décembre 1922.

RÉSUMÉ.

L'invention consiste en un fil à plomb remarquable en ce que la masse pesante contient un foyer lumineux projetant un pinceau de lumière exactement dans le prolongement du fil et traçant ainsi sur le sol, ou l'objet envisagé, un point lumineux indiquant exactement l'aplomb cherché.

F.-R. DACHEUX.

Par procuration :
Lavoix et Mosès.



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The British patent shows a GAS DETECTING LAMP WITH A TARGET:

N^o 525



A.D. 1909

Date of Application, 8th Jan., 1909

Complete Specification Left, 9th Aug., 1909—Accepted, 16th Dec., 1909

PROVISIONAL SPECIFICATION.

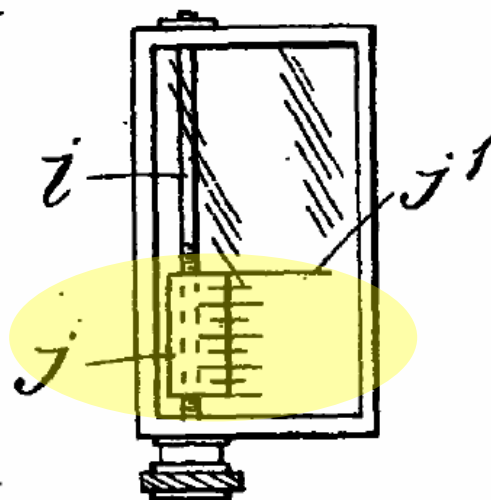
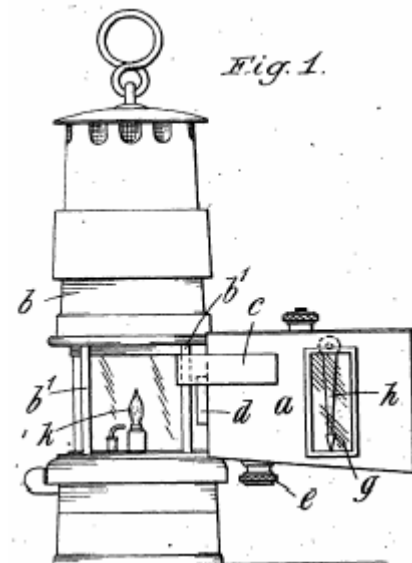
**“Improved Means for Detecting or Indicating the Presence of Gas
in Mines or the like.”**

I, JOHN GEORGE PATTERSON, of 11, Victoria Place, Darlington, in the County of Durham, Engineer, do hereby declare the nature of this invention to be as follows:—

of focussing and at the opposite end of the enclosed box is placed a focussing 10
screen of ground or opal glass or other suitable material. On one side of the
enclosed box may be provided a window or the like, which is illuminated from
within by the lamp and hanging inside this window is a pointer or plumb
bob, the object of which is to ensure that the lamp when in use is in a vertical 15
position. It will however be understood that the levelling can be attained
in other ways. On the focussing screen are provided marks or thin lines which
may be the shape of the flame, and horizontal lines at various distances, or a
screw on which a nut travels may be used, said screw having transverse bars
or stretchers of thin metal or wire which are the equivalent of the said lines
and which can be moved up and down inside the focussing screen by means 20
of such screw and nut.

4. The combination with an apparatus for detecting or indicating the pre-
35 sence of gas in mines or the like as claimed in the first claim of a plumb bob
or level for the purpose described.

Fig. 5.



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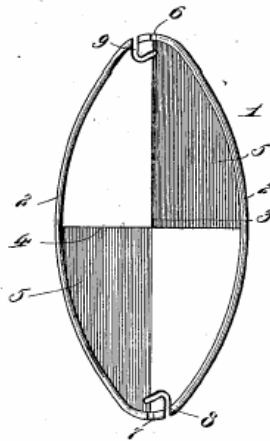
The usual surveyor's targets that we already know:

1,101,375.

B. WUTH.
TARGET FOR PLUMB BOB STRINGS.
APPLICATION FILED FEB. 27, 1912.

Patented J

Fig. 1.



1,227,631.

P. A. KOLESCH.
SURVEYOR'S TARGET.
APPLICATION FILED MAR. 15, 1913.

Patented May 29, 1917.

Fig. 1.

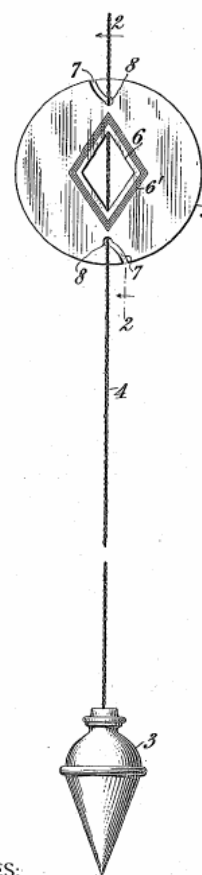
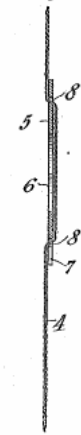


Fig. 2.



WITNESSES:
Rene Muine
Ired White

INVENTOR :
Percy A. Kolesch,
By Attorneys,
James, Durk & Myers



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In 2006 I bought from a CANADIAN MINER a plumb bob with a reflection cover. In the pictures you can see the difference.



On Ebay I found a picture of a "mining plumb bob with glass marble". Perhaps it is not complete, but interesting. I can't see a gimbal or other part to fix the line.

