

PATENT NEWS especially for PLUMB BOB COLLECTORS

## WR PATENT NEWS # 2007-08

**Patent US5537205 COSTA 1996**  
**SELF LEVELING LASE PLUMB ASSEMBLY +**

**Patent US4106207 BOYETT 1978**  
**Point to point self-levelling plumbing device +**

**Patent DE356839 BRAUNSCHU 1922**  
**Plumb bob (with light) +**

**Patent FR547411 DACHEUX 1922**  
**Fil à plomb à indications lumineuses +**

**Patent DE843602 BOEHM 1949**  
**Leuchtendes Lot (Beaming plumb bob)**

**Patent DE19934984 BAEDER 2002**  
**Plumb bob**

**All the plumb bobs in these patents use LIGHT or LASER.**

I bought exactly 2 years ago in 2005 in England a SOMIC plumb bob (my #431) with a laser light hanging in a tripod with a GIMBAL. This item shows the simple plumb bob (GRAVITY) assisted by THE LIGHT.

In the cases shown today, the light is the **extension of the tip or the top** of the plumb bob. It is a real plumb bob, but working upside down: it points UP and stands on the floor.

In the history of plumb bobs we find:

Simple stone, exact shape, with tip, different materials, hardened tip, tip or top unscrews, cap for tips, mercury filled, can't roll six sided, wheel outside and inside, coloured or reflecting, mechanical with gear boxes inside, combination with chalk lines, combination with light for mining, combination with laser etc. etc.....

**We see that our simple plumb bob the whole time of its live** of thousands of years always **has modifications**. The base is the GRAVITY, but the modifications and innovations we find **in the use** of the plumb bob.

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The advantage of my installation #431 is the relatively short distance from the gimbal to the tip and to the top where the laser comes out. If this distance is very long you have the disadvantage of a long time to motionless of the plumb bob. See the tests done by Bruce Cynar and Bernard Ridens in "The Plumb Line" Sept 1991: ... the LENGTH of the plumb line is the key factor in "Time To Motionless".



I use this plumb bob to fix the point on the ceiling, where I have to drill the hole for the hook of the lamp exactly over the middle of the table ☺



The seller of the plumb bob told me the following **history**:

*"I knew the man who designed and developed this plumb bob, he lived about 3 miles from where I live. About ten years ago he designed this plumb bob and made some prototypes to test for accuracy. After testing he decides to have some manufactured to see how they would sell. The one you have, was from the first batch that were made. He had them made in Thailand (where he spent a lot of time) the reason they were made there was the cost of making them was cheaper than here in the U.K.. He gave me one of the first to arrive here to trial (as I am a carpenter/Joiner and do a lot of stud work etc.) but as you can see from the condition of it has not seen any site work and I did not do much testing with it. A short time after the man moved to Thailand to live permanently and I haven't seen or heard from him since then. I have to be honest I have never seen any more of these plumb bobs except for the one you have since. I would not be surprised if he did not have any more made, if he has they are not readily available in the U.K. this is why I advertised it as rare. I would not be surprised that you may now own one of the very few that were ever made. This is one of the reasons there are no manufacturers instruction, none had been produced when I was given that one. I hope this information helps....."*

It is not very often that I got such a history for a plumb bob.

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Searching in my "patent brain" I found the US patent US5537205 given to George J. Costa Jul. 16, 1996 (see full patent in the supplements) that looks very similar to my plumb bob.

US005537205A

[11] Patent Number: 5,537,205  
[45] Date of Patent: Jul. 16, 1996

3,858,984	1/1975	Denton et al.	356/250
3,911,588	10/1975	Ohneda	33/286
4,183,667	1/1980	Denton	356/149
4,448,528	5/1984	McManus	356/149

Primary Examiner—F. L. Evans  
Attorney, Agent, or Firm—Charles C. Logan, II

[57] ABSTRACT

A self leveling laser plumb assembly having a battery powered laser unit, a laser unit mounting support, and at least three support legs secured to the bottom of a gimbal ring assembly. The top end of the laser unit mounting support removably receives the laser beam unit. The laser unit mounting support vertically aligns itself by gravity. This allows a beam of light from the laser unit to be directed upwardly to a surface where a predetermined spot can be marked.

6 Claims, 1 Drawing Sheet

U.S. Patent 5537205 Jul. 16, 1996

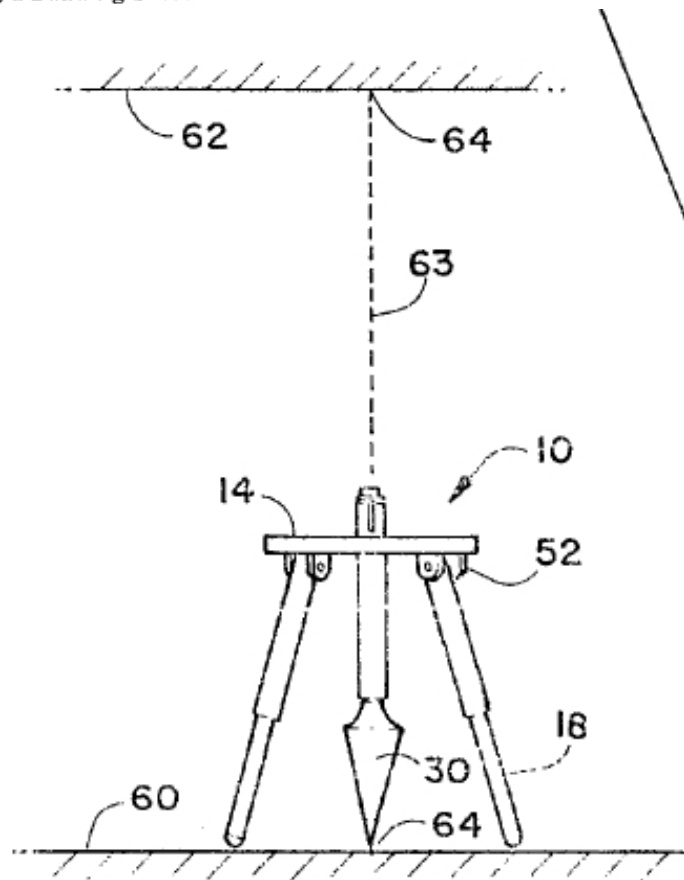
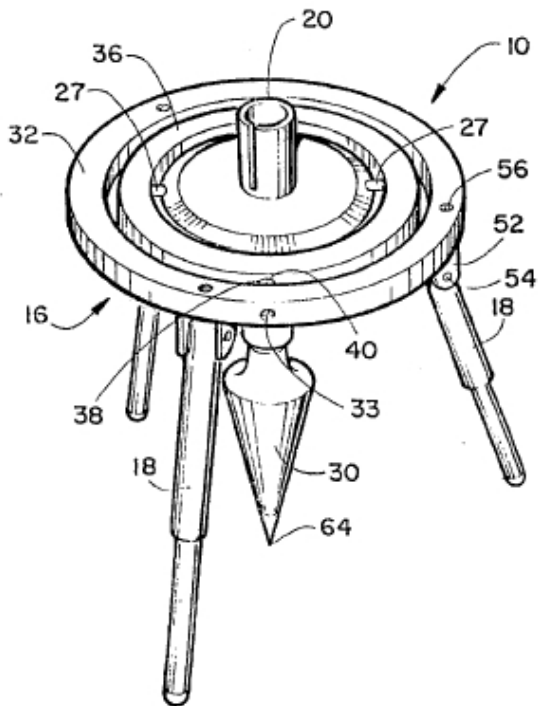
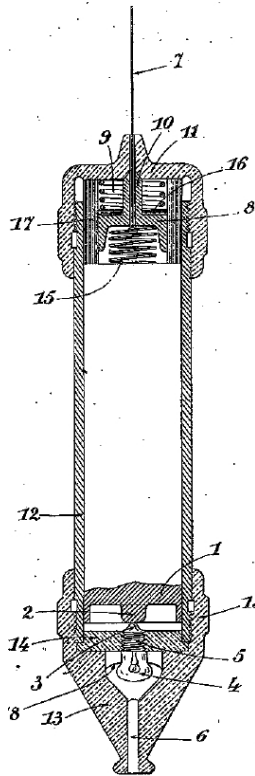


FIGURE 3

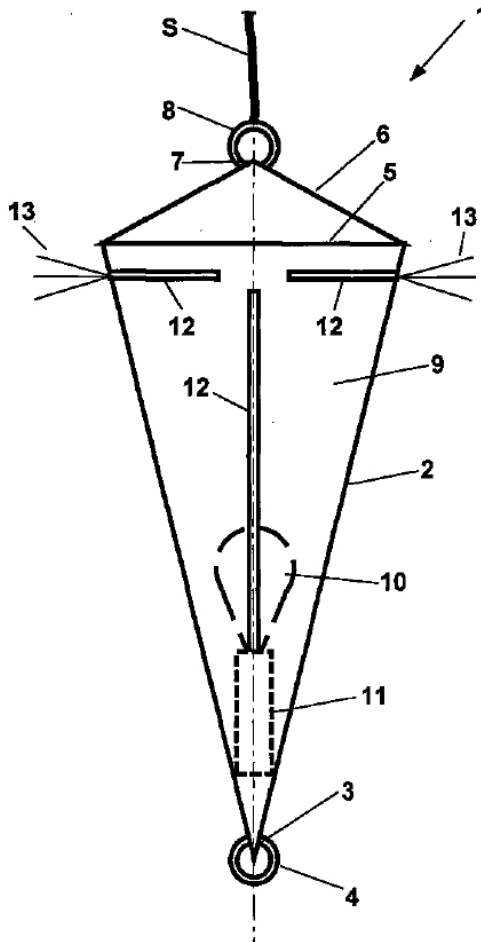
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I found the following patents 1922, 1949, 1956 and 2001 in Germany (DE) and 1922 in France (FR) using a LIGHT to show a SPOT or a LINE horizontal or vertical.

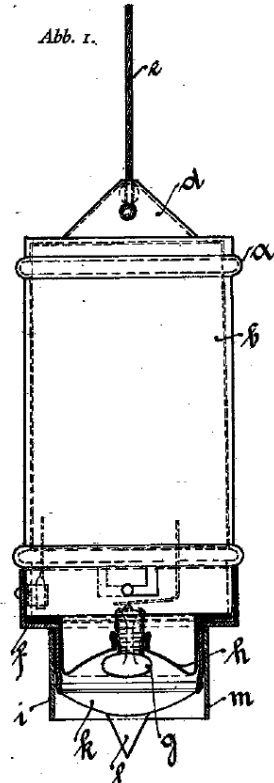
M. Dacheux



FR547411 1922  
DACHEUX



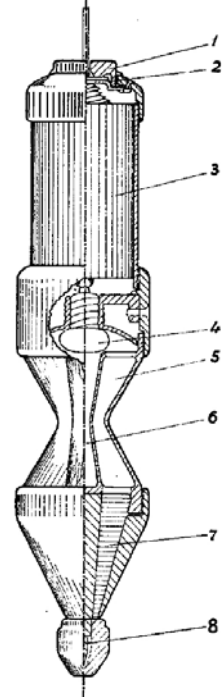
DE19934984 2001 BAEDER



DE356839  
1922 BRAUNSCHU

DE843602 1949 Boehm

Fig. 1



LASERMARK plumb bob (without gimbal??).

**PATENT NEWS especially for PLUMB BOB COLLECTORS**

A patent for a **LASER PLUMB BOB** with **lamp/lenses system** to point **UPWARD** and **DOWNWARDS** is described in the patent **US4106207 1978 BOYETT**:

**United States Patent** [19]

[11] **4,106,207**

Boyett et al.

[45] **Aug. 15, 1978**

[54] **POINT TO POINT SELF-LEVELING PLUMBING DEVICE**

[76] Inventors: **Vernon Hugo Boyett**, 310 Lakeshire Dr., Daly City, Calif. 94015; **Robert W. Devine**, 743 Montezuma Dr., Pacifica, Calif. 94044

[21] Appl. No.: **712,868**

[22] Filed: **Aug. 9, 1976**

[51] Int. Cl.<sup>2</sup> ..... **G01C 15/02; G01C 15/10**

[52] U.S. Cl. .... **33/286; 33/227; 33/299**

[58] Field of Search ..... **33/227, 286, 291, 299, 33/397; 240/6.4 R, 10.66, 10.69**

[56] **References Cited**

**U.S. PATENT DOCUMENTS**

2,517,295	8/1950	Esher	33/397
2,571,287	10/1951	Peters	33/291
3,462,845	8/1969	Matthews	33/291
3,505,739	4/1970	Abrams	33/227
3,772,797	11/1973	Gleba	33/227
3,911,588	10/1975	Ohmeda	33/227

**FOREIGN PATENT DOCUMENTS**

1,162,395	4/1958	France	33/227
130,265	12/1950	Sweden	33/397

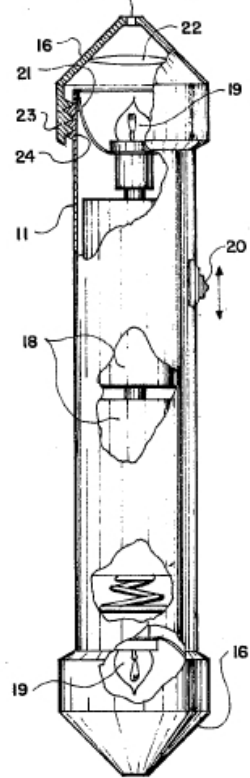
*Primary Examiner*—Richard E. Aegerter  
*Assistant Examiner*—Richard R. Stearns  
*Attorney, Agent, or Firm*—Warren M. Becker

[57] **ABSTRACT**

A tubular aluminum housing, having vertically centered pinpoint light bulbs at either end in nose cones, is suspended on a stand by a gimbal system, and has an on-off switch and batteries such that the light bulbs will emit aligned light beams above and below the housing. The nose cones are threaded onto the housing such that they can be moved upwardly and downwardly for focusing of the light beams. Collimator and magnifying lenses are contained in the nose cones for magnification and additional focusing. A wind shield is disposed on the stand around the housing.

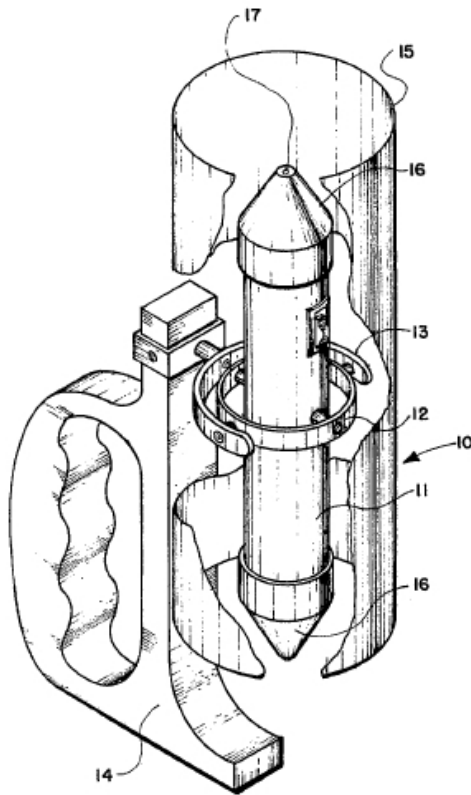
**5 Claims, 3 Drawing Figures**

US4106207  
 BOYETT 1978

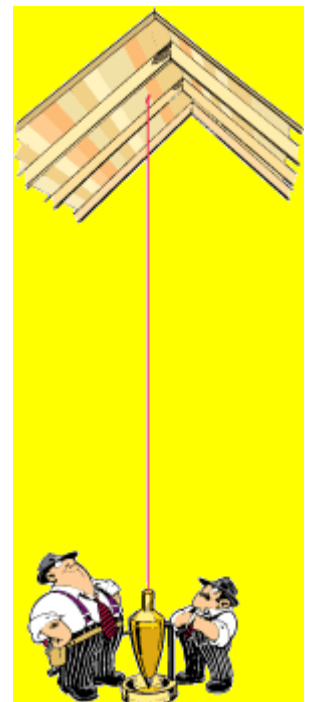


**FIG. 3**

**US4106207  
 BOYETT 1978**



**FIG. 1**



A picture from **RACK-A-TIERS® Laser Plumb Bob** shows pointing **UPWARDS** without and with a laser plumb bob. ☺.