

GRIFFIN'S PATENTED LIGHTED PLUMB BOB update

Author: Wolf Ruecker

www.plumbbobcollectors.info

Dear Fellow Collector,

Dear reader of the PLUMB BOB NEWS,

Please, as always I am in search of new photos, catalogs, articles or personal stories about any aspect of PLUMB BOBS from you. Any help is appreciated.

If you have any information or pictures for these themes, please let me know.

Thank you, looking forward to hearing from you

Wolf

GRIFFIN'S PATENTED LIGHTED PLUMB BOB update

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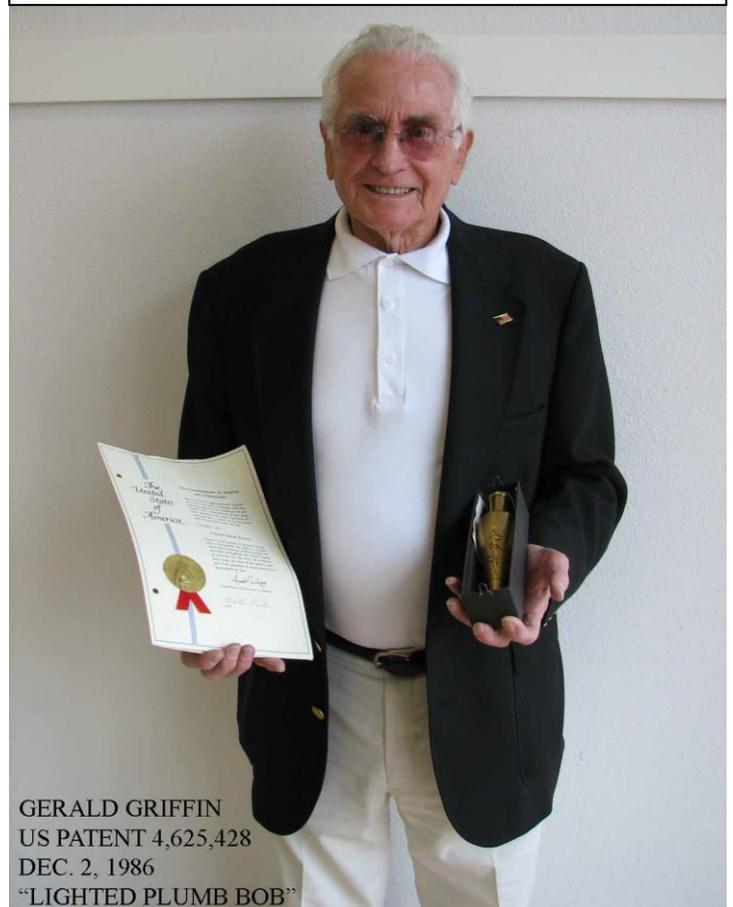
1. INTRODUCTION

Already in one of my 50 newsletters in 2007 about patented plumb bobs I wrote about **lighted plumb bobs** and mentioned the GRIFFIN in a short chapter.

In this newsletter I will provide all information which I have accumulated following correspondence with an individual who distributes/sells unmarked Griffin Plumb Bobs. These 32 ounce "remakes" are identical to the original patented Griffin Plumb Bob and also contain a solid steel tip for substitution for the two original tips which contain hole for light transmission.

This is because the light spot of the battery powered light is not as strong as a laser beam. In a plumb bob patented in 1985 we expect a laser light. Never the less, this plumb bob is an interesting technical tool in the history of lighted plumb bobs. Unfortunately it came 65 years too late on the market. ☹

The inventor Gerald Griffin with one of his signed patented BRASS PLUMB LITE



United States Patent [19]
Griffin

[11] **Patent Number:** 4,625,428
 [45] **Date of Patent:** Dec. 2, 1986

- [54] **LIGHTED PLUMB BOB**
- [76] **Inventor:** Gerald E. Griffin, 1207 Deerfield Ct., Ontario, Calif. 91761
- [21] **Appl. No.:** 727,732
- [22] **Filed:** Apr. 26, 1985
- [51] **Int. Cl.⁴** G01C 15/10
- [52] **U.S. Cl.** 33/348; 33/392
- [58] **Field of Search** 33/348, 392
- [56] **References Cited**

FOREIGN PATENT DOCUMENTS

547411 9/1922 France 33/348

The Griffin plumb bob is patented as
 "US4625428A1 GRIFFIN 1986
 Lighted plumb bob"¹

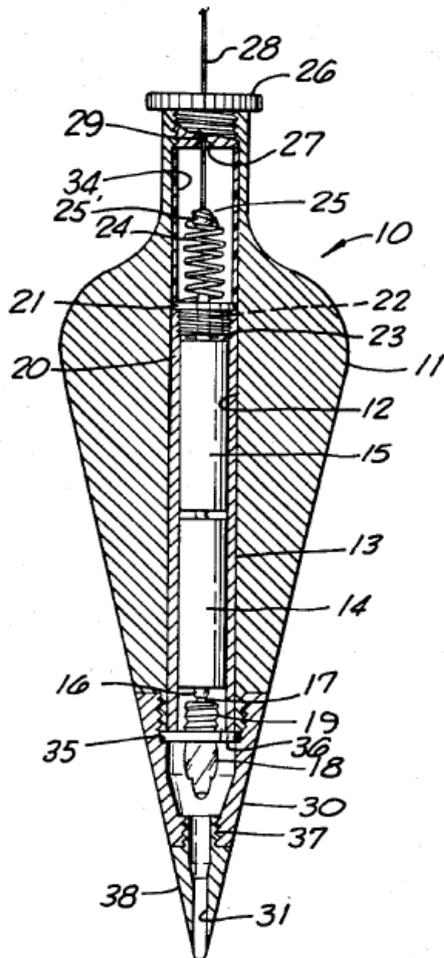


FIG. 1.

¹ The original patent you can find in the Google patent search

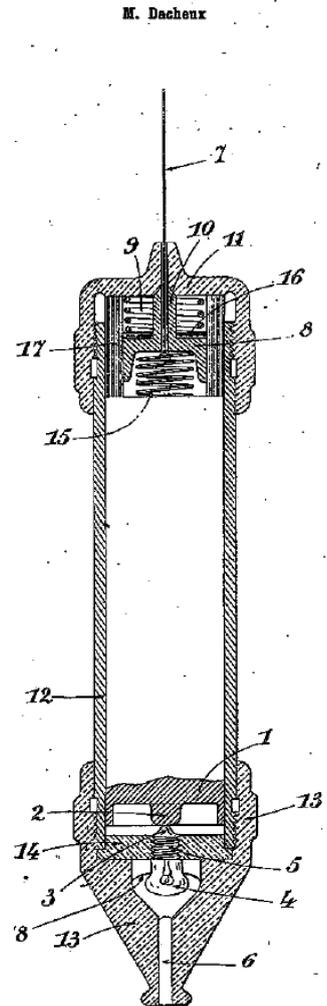
Primary Examiner—Harry N. Haroian
Attorney, Agent, or Firm—Edgar W. Averill, Jr.

[57] **ABSTRACT**

An improved plumb bob having a downwardly directed light beam to indicate the point directly below the plumb bob. The light is operated by batteries within the plumb bob and, in order to prevent undesired draining of the batteries, the light is switched on and off by the weight of the plumb bob acting on the line. The switch is activated by a conductive spring held within the plumb bob.

6 Claims, 3 Drawing Figures

The French plumb bob cited as reference is
 FR547411 DACHEUX 1922
 FIL A PLOMB A INDICATIONES
 LUMINEUSES [PLUMB BOB WITH LIGHT
 INDICATION]
 (See Fig. right).



FR547411 1922
 DACHEUX

LIGHTED PLUMB BOB

Jan. 16, 1951

F. J. SKRASTIN, JR

2,538,475

SURVEYOR'S ILLUMINATED BACKSIGHT

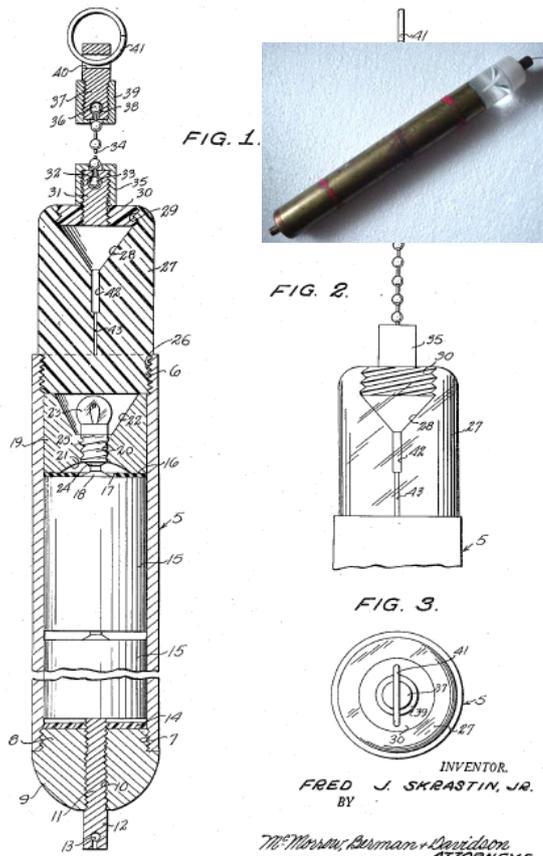
Filed Aug. 13, 1948

BACKGROUND OF THE DISCLOSURE

The field of the invention is measuring and defining tools and the invention relates more particularly to plumb lines of the type utilizing a light line with a weight (plumb bob) at the lower end thereof. Such bobs when suspended, of course, define a vertical.

In many building applications, it is necessary to indicate the vertical point in a confined area as within a wall such that it is not possible for the bob to about touch the floor. It is also often desirable to mark the vertical point below the plumb bob without disturbing the bob itself. By the use of a downwardly directed beam of light such purposes may be accomplished.

Lighted plumb bobs have been devised in the past with plumb lights being disclosed in U.S. Pat. No. 1,113,519 and in illuminated surveyor's instrument disclosed in U.S. Pat. No. 2,538,475. Plumb bobs having downwardly directed beams of light are disclosed in the U.S. Pat. Nos. 2,583,491 and 2,665,498. A major difficulty with such devices, however, was the ease and rapidity with which the batteries would become discharged when the plumb bob light was inadvertently left on. For instance, when a plumb light is being used in a confined, darkened environment, it is easy to see that the light is on, but when the bob is removed from this environment, the fact that it is on is not readily evident and thus the batteries are quickly dissipated and the device becomes of minimal use.

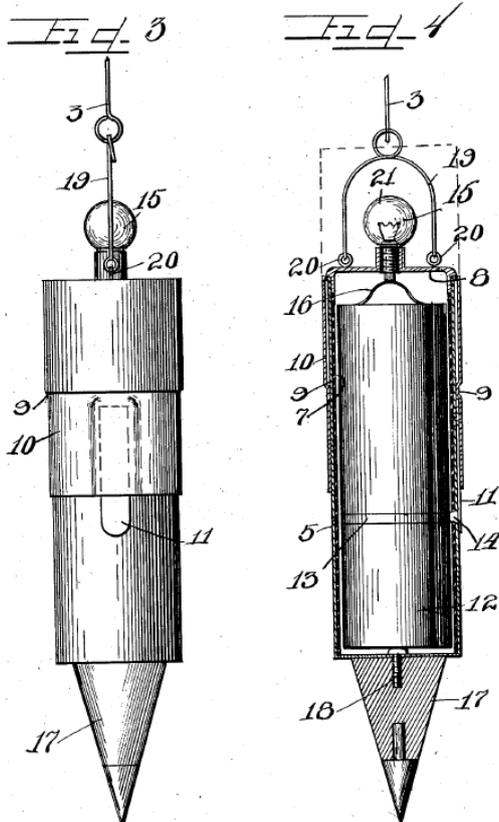


The mentioned plumb bobs are:
US1,113,519 WALLACE 1914 PLUMB LIGHT

D. A. WALLACE.
PLUMB LIGHT.
APPLICATION FILED APR. 21, 1913.

Patented Oct. 13, 1914.
2 SHEETS-SHEET 2.

1,113,519.

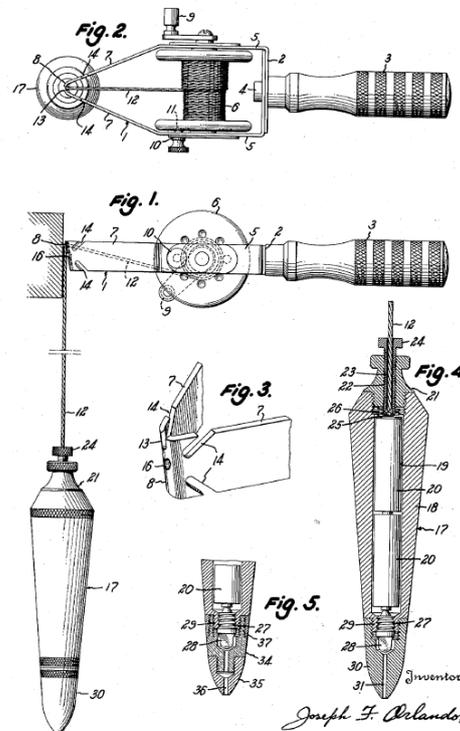


US2583491
ORLANDO
1952
PLUMB
BOB
DEVICE

Jan. 22, 1952

J. F. ORLANDO
PLUMB BOB DEVICE
Filed Feb. 27, 1948

2,583,491



The screw 23 is the switch for the electrical circuit. (see patent text below)

The screw 23 serves the dual purpose of anchoring the plumb line and as a switch for the battery circuit. In order to prevent accidental completion of the circuit by contact of the end of the battery with the plug 21, an insulating disc 25 having a central aperture to pass the end of the

Jan. 12, 1954

E. C. MITCHELL
ELECTRO PLUMB BOB
Filed June 24, 1950

2,665,498

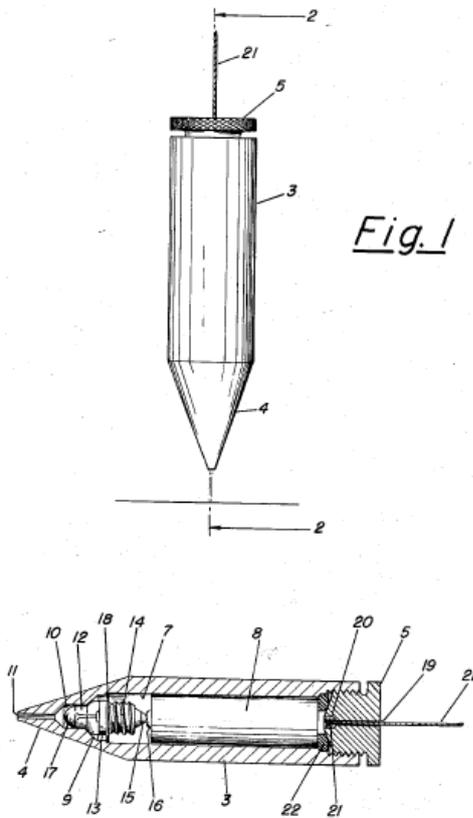


Fig. 1

REMARK:

My opinion is that the GRIFFIN plumb bob is better than these 4 American patented plumb bobs, because Griffin has the SPECIAL SWITCH for the batteries. But when you read the French patent from 1922 and look at the drawing (see page 89 and detail shown in the right column) I can not see any advantage. ☹

BUT DACHEUX DID NOT CLAIM IT IN HIS RESUME 64 YEARS BEFORE GRIFFIN!

That may be the reason, why Griffin could get the patent in 1986.

FR547411 DACHEUX 1922 FIL A PLOMB A INDICATIONES LUMINEUSES

RÉSUMÉ.

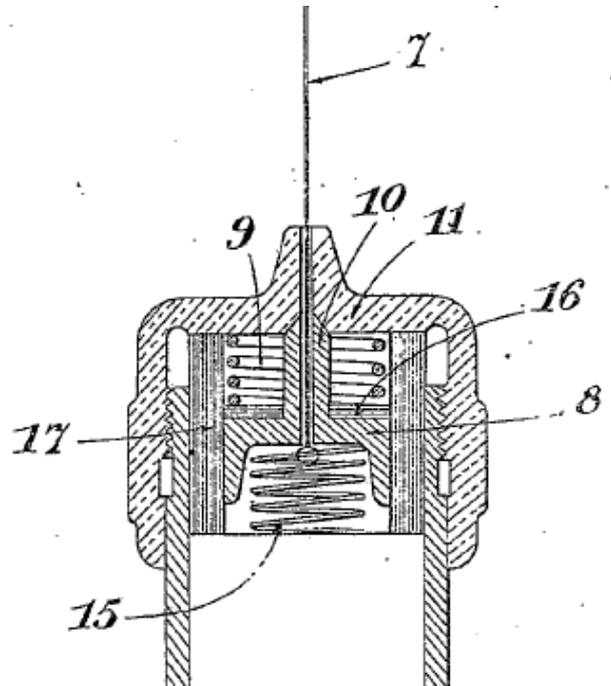
L'invention consiste en un fil à plomb remarquable en ce que la masse pesante contient un foyer lumineux projetant un pinceau de lumière exactement dans le prolongement 30 du fil et traçant ainsi sur le sol, ou l'objet envisagé, un point lumineux indiquant exactement l'aplomb cherché.

F.-R. DACHEUX.

TRANSLATION: The invention consists of a wire lead to remarkable in that the heavy mass contains a luminous source projecting a beam of light exactly in line and tracer wire and the ground, or the intended object, a bright dot showing exactly the plumb sought.

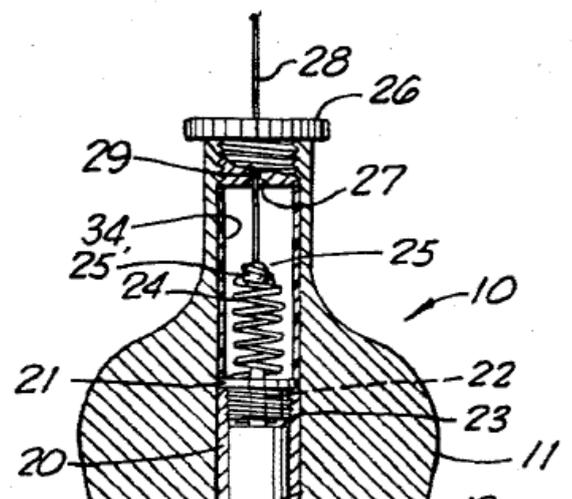
For Dacheux the switch was not a part of his invention, even when he showed it in his patent drawing.

SWITCH IN THE DACHEUX PLUMB BOB:



Le fonctionnement est le suivant quand on se sert du fil à plomb le poids suspendu au 5 bout du fil en comprimant le ressort 9 amène le contact entre la pointe 10 du piston 8 et le chapeau 11, dans ces conditions la lampe 4 s'allume et par l'orifice 6 projette dans le prolongement du fil un pinceau lumineux.
10 Lorsque la tension du fil cesse, le ressort 9 repousse le piston 8 vers le bas, le contact se rompt entre 10 et 11, et la lampe s'éteint.

SWITCH IN THE GRIFFIN PLUMB BOB:



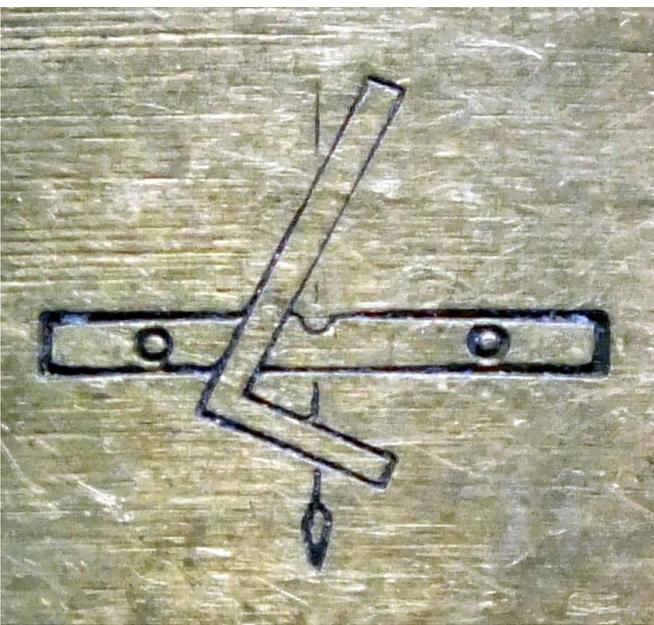
I found two different produced plumb bobs, the ORIGINAL (chapter 3) and a REMAKE (chapter 5):

3. THE ORIGINAL PLUMB BOB (MARKED)

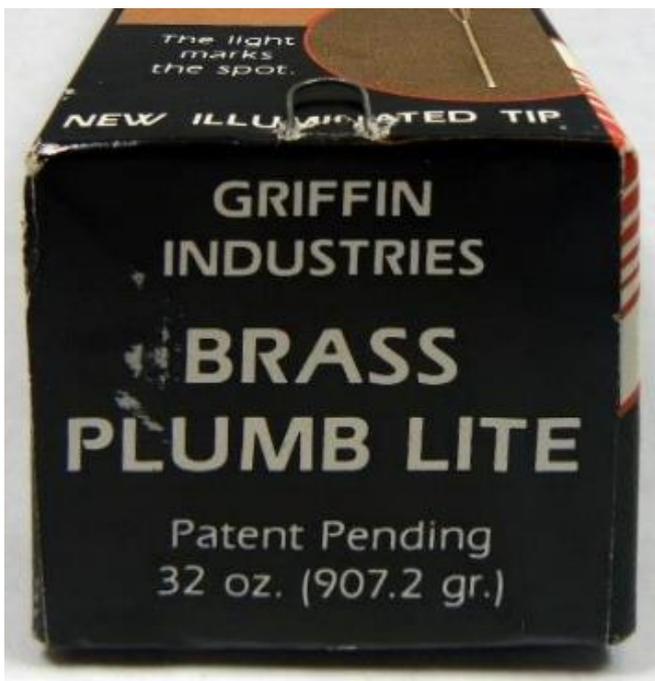
Let's have a look to the details of the Griffin plumb bob:

Produced after filing date Apr. 26, 1985 and before the patent date Dec. 2, 1986

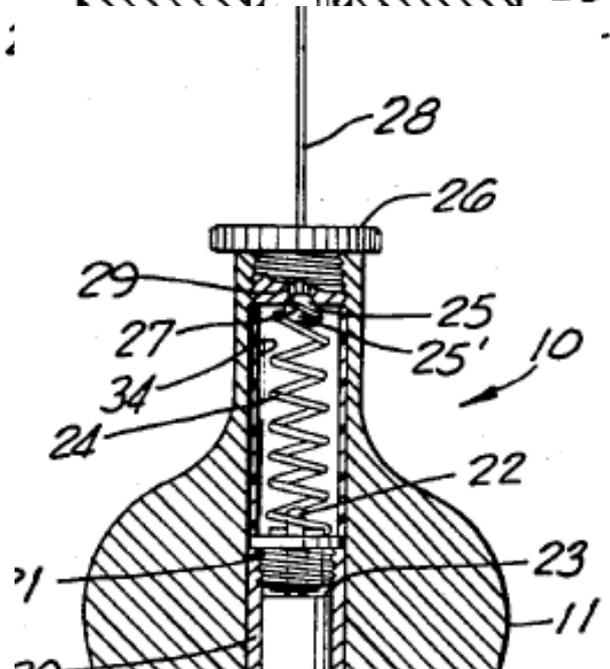
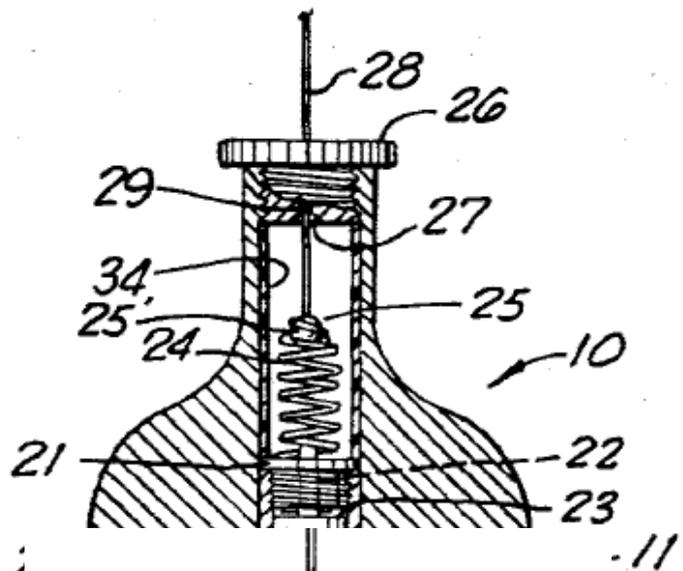
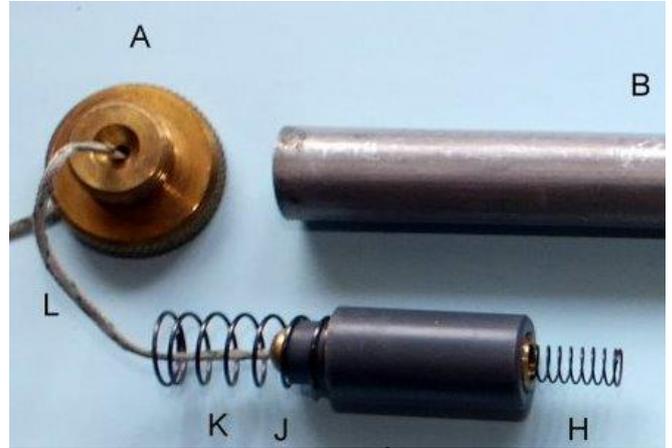
Marked „GRIFFIN IND 32 OZ PAT PEND“ and the logo = level, plumb bob and square (see Figs. below).

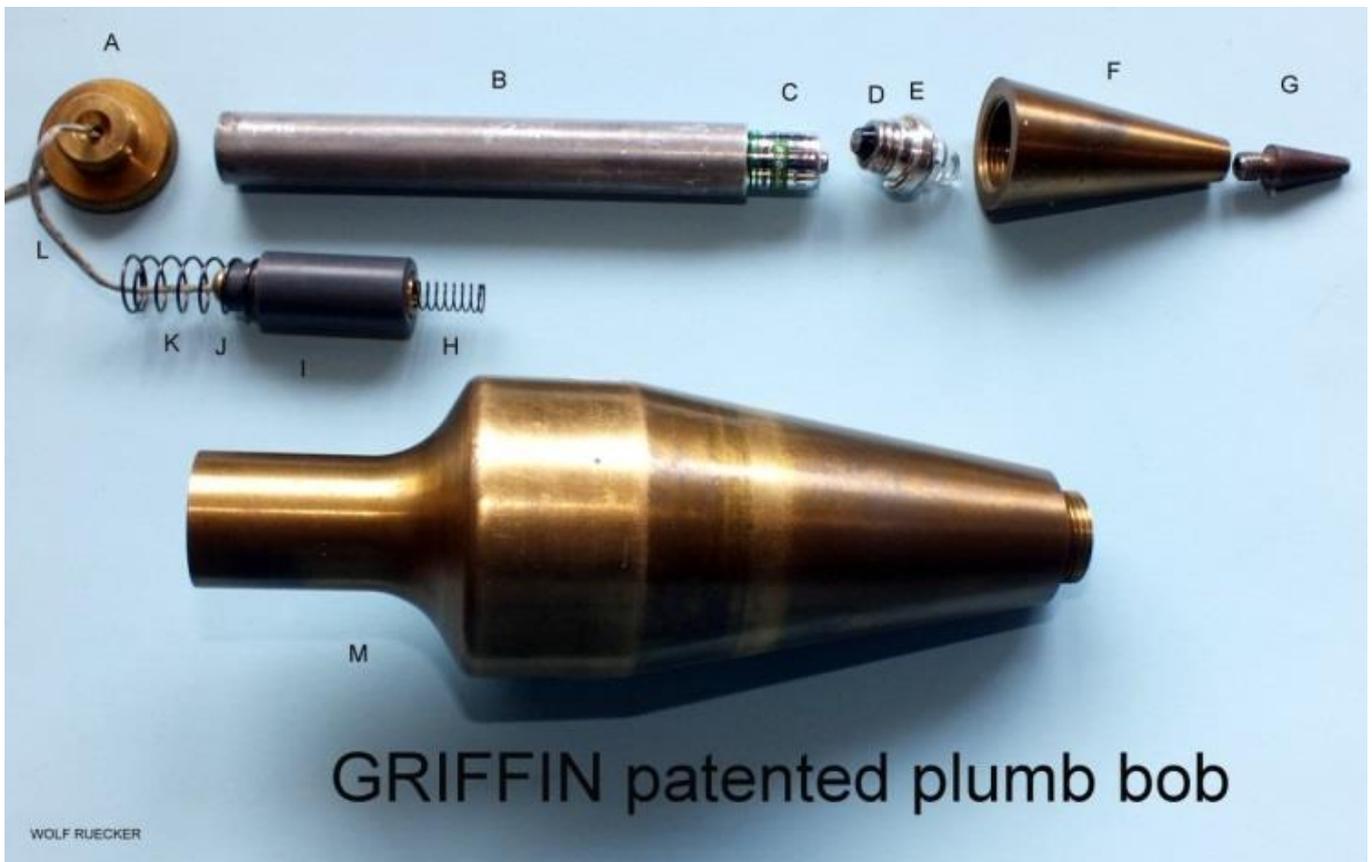


The cardboard box.



THE SWITCH (**A L K J I H**) WORKS AS FOLLOWS:
IF THE LINE **L (28)** IS NOT TIGHTENED, THERE IS A DISTANCE BETWEEN THE BALL **J (25)** AND THE SCREW **A (26)**. NO ELECTRICAL CONNECTION. WHEN YOU PULL THE LINE **L (28)** THE SWITCH MOVES TOWARD SCREW **A (26)** AND THE BALL **J (25)** HAS CONTACT TO THE SCREW **A (26)**. THE CIRCUIT IS CLOSED.





GRIFFIN patented plumb bob

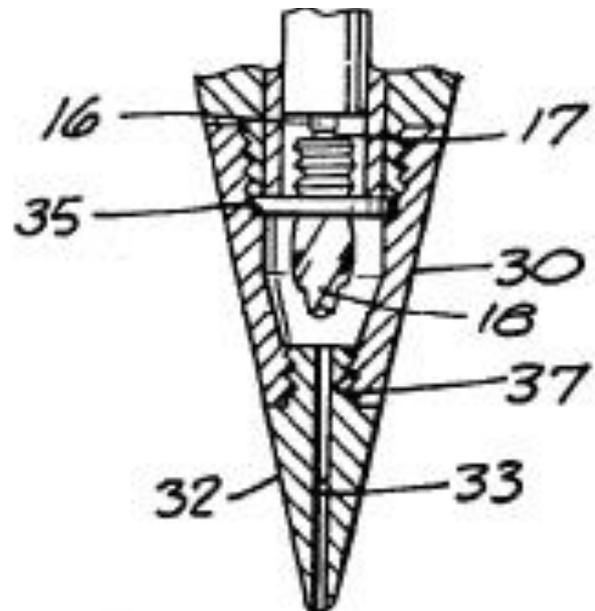
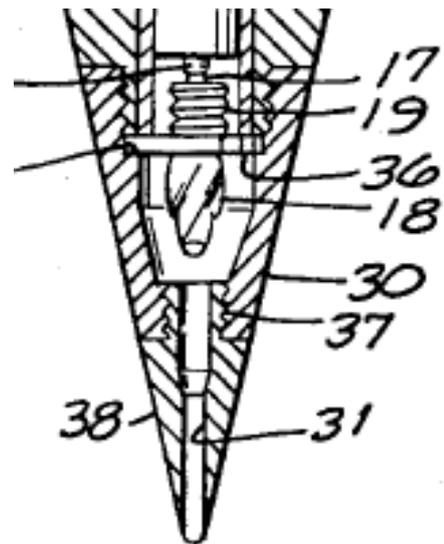
Parts of the original Griffin



Pulling the line = LIGHT ON

DIFFERENT TIPS (see drawings right)

Tip **38** has an axial opening **31** which directs a beam of light from light bulb **18** directly downwardly from the plumb bob. So that the plumb bob may be used in different environments, a plurality of removable tips are provided and a tip **32** is shown (in the figure right below) which has an axial opening **33** which is smaller in diameter than opening **31** and thus projects a smaller beam of light for more accurate work. Preferably, tip **38** and tip **32** are made from stainless steel so that its central opening is less likely to be damaged if it is inadvertently dropped on the tip.



4. ORIGINAL INSTRUCTION SHEET

(b/w)



Hold body of plumb lite in either hand and turn barrel of plumb lite counterclockwise. (Figure 1)

Fig. 1



After removing barrel, (Figure 2), screw light into opening (Figure 3) until bulb is securely tightened.

Fig. 2



Grab bulb as indicated in Fig. (3) and pull to remove battery pack.

Fig. 3



After battery pack is removed, remove cap (Fig. 4) as shown in photo by turning in counterclockwise motion.

1. Hold body of plumb lite in either hand and turn barrel of plumb lite counterclockwise. (Figure 1)
2. After removing barrel, (Figure 2), screw light into opening (Figure 3) until bulb is securely tightened.
3. Grab bulb as indicated in Fig. (3) and pull to remove battery pack.
4. After battery pack is removed, remove cap (Fig. 4) as shown in photo by turning in counterclockwise motion.
5. After cap is removed, insert 1.5 volts size AAA batteries as shown in photo (Fig. 5). Batteries are not supplied with this purchase.
6. Insert nylon line as indicated in photo (Fig. 6).
7. Replace cap into battery pack and place back into body of plumb lite securely. (Figure 7)
8. Screw barrel back onto body of the plumb lite. It is now ready for use.

Griffin Industries is proud to offer its customers the latest in engineering firsts.

We will continue in our endeavors to provide the finest quality equipment to make your job easier.

Let us know how you like our products.

Thank you,

Griffin Industries
P.O. Box 4321 Ontario, CA 91761-8821

Gerald E. Griffin
Gerald E. Griffin
President



Insert nylon line as indicated in photo (Fig. 6)



After cap is removed, insert 1.5 volts size AAA batteries as shown in photo (Fig. 5). Batteries are not supplied with this purchase



Replace cap into battery pack and place back into body of plumb lite securely. (Figure 7)

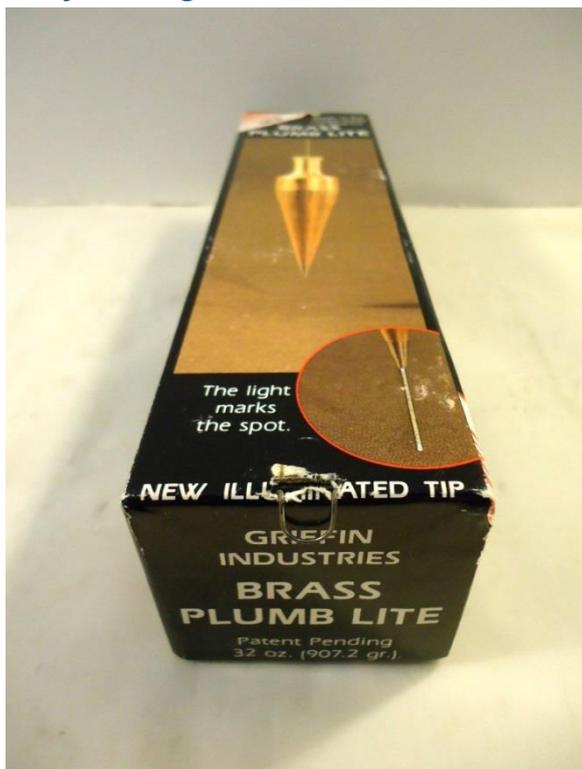
5. THE REMAKE (UNMARKED)

IT IS UNMARKED BUT WITH THE SAME FUNCTIONS AND IN THE ORIGINAL BOX AND ALSO WITH THE ORIGINAL INSTRUCTION SHEET.

This REMAKE was produced in a 32oz and a 24oz version said the seller, but I am not sure. Why Griffin should produce a second size? Up to now we have no proof by photos or other facts. Did anyone see (or have) the 24 oz version?

I don't know if it is made by the GRIFFIN IND. On EBay was offered in 2013 from TUCSON AZ: *Brass Plumb Bob, 32 oz. New, Made in U.S.A. by Griffin Industries with 3 tips.*

This Plumb Bob was designed by the manufacturer to light up at its tip. They called it the "Brass Plumb Lite". It comes in its original box with directions to make it light up. Originally, it came with two tips with 2 different sized holes for the light. We had a third tip made that will allow the user to use it as a normal 32 oz. plumb bob. This tip was made in Tucson, AZ and we guarantee the concentricity and accuracy of the tip. The plumb bob is made of solid brass and provides versatility that you do not find in other plumb bobs. This tool is sold with the Kent's Tools 30 day satisfaction guarantee



Original photos of this EBay offer:



I bought 4 of these plumb bobs for me and some friends in Germany. The price was much cheaper than in the MJD auctions. Later I informed some other friends that Kent has still some "Griffin remake" to sell. Some of them bought the "remake".

The seller replied to my inquiry regarding where he was able to locate such a large quantity of Griffin Plumb Bobs:

*"Hello Wolfgang,
I really can't remember where I got them. We deal in New, Used and Surplus tools and I can't remember if I bought them locally or from another surplus dealer back east. Upon further reflection, I believe that I bought them locally from a 50 or 60 year old man. I did buy all that were available at the time. It was probably 6 to 12 years ago. I recently uncovered them when going through my warehouse. **Originally I had both 24oz and 32oz. I have quite a few left, but haven't found any 24oz.** I had trouble selling them locally as just lighted plumb bobs, so we had the extra tip made locally. This allows the buyer to use it with or without the light. We must have sold all of the stock we had in our store and then forgot to re-stock from our warehouse. Thus the time lapse from the original purchase to today. Not much of a story. Kent
... I sell one of these to every elevator technician that walks thru my door. Maybe 2 in the last*

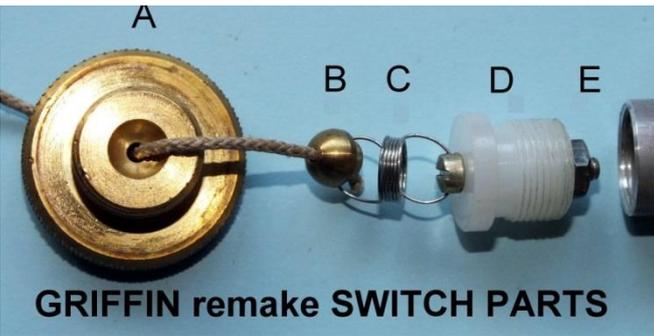
month. The third tip makes them much more useful. Surprised Griffin didn't think of that. ... I take some of the plumb bobs and sell them just with the points that I had made to customers who only want a standard 32oz plumb bob. It is easier to do that than explain the lighted feature to them. Hope all is well. Kent"

So a very interesting patented plumb bob with lighting installation is finally sold as a simple heavy plumb bob. ©

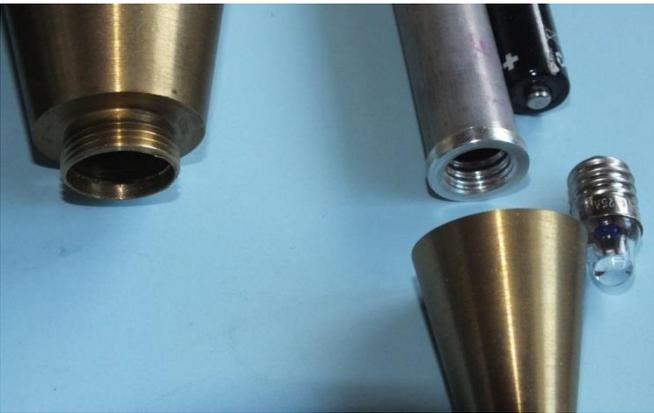
NOW WE KNOW ALSO AN ORIGINAL BUT UNMARKED PLUMB BOB IN THE ORIGINAL BOX. THIS - I CALL IT "REMAKE" - PLUMB BOB HAS DIFFERENT PARTS INSIDE TO SWITCH THE LIGHT ON AND OFF

This REMAKE is not marked with any information like GRIFFIN INDUSTRIES; patent pending; 32 OZ; etc.!

Here are close up photos of the installation inside of this "remake" from my collection. The switch is a little bit different than the switch in the original plumb bob.



GRIFFIN remake SWITCH PARTS



The only problem is to fix the line to the contact inside the plumb bob when you bought this plumb bob without a string/line. This action needs some experience.

For a friend I wrote a short instruction: "YOU CAN GET THE PARTS OUT OF THE PLUMB BOB AFTER YOU UNSCREWED THE LOWER PART OF THE BODY I. THEN YOU CAN PULL OUT THE ALUMINIUM PIPE G WITH THE SWITCH (B C D E) AND THE BATTERIES F. YOU MUST GUIDE A LINE THROUGH THE HOLE OF SCREW A AND THE HOLE OF BALL B. MAKE A



KNOT AT THE END OF THE LINE. THE SYSTEM WORKS AS FOLLOWS: THE ELECTRIC CIRCUIT IS OPEN, BECAUSE THE SPRING C PULLS THE BALL B AWAY FROM THE SCREW A. WHEN YOU HOLD THE PLUMB BOB ON THE LINE L (WORKING POSITION), THE LINE L PULLS THE BALL B AGAINST THE SCREW A AND THE ELECTRIC CIRCUIT IS CLOSED, THE LAMP IS LIGHTED. WHEN YOU PUT THE PLUMB BOB BACK INTO THE TOOLBOX, THE SPRING C PULLS THE BALL B BACK AND B HAS NO CONTACT TO A. LIGHT IS OFF.



LIGHT OFF



PULLING THE STRING

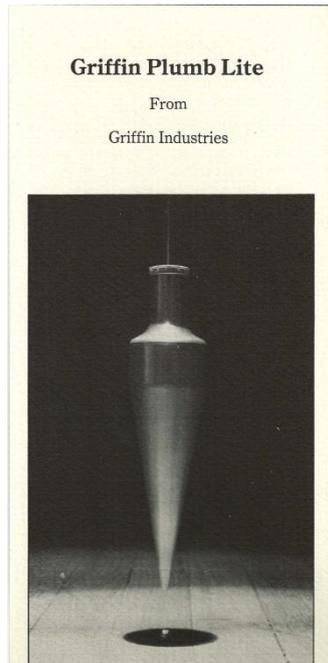
LIGHT ON



THE PARTS OF THE ELECTRIC CIRCUIT ARE: BATTERIES **F**, BULB **H**, PIPE **G**, BODY **K**, SCREW **A**, BALL **B**, SPRING **C**. SCREW **E**). ISOLATOR **D** IS TO SEPARATE THE TWO LINES (holds the parts of the switch in the middle of the aluminum tube to not have contact). I AGREE WITH YOU THAT IT IS VERY DIFFICULT FOR A CLIENT TO GET THE SWITCH OFF THE PLUMB BOB TO FIX THE LINE. THAT SHOULD BE ALREADY DONE BY THE SELLER OF A PLUMB BOB. I DON'T MEAN THE EBAY SELLER, BUT THE OWNER OF THE TOOL STORE WHO SELLS THE PLUMB BOBS TO THE WORKERS. HOPE EVERYTHING IS CLEAR NOW! IF YOU HAVE ANY QUESTIONS, FEEL FREE TO ASK."

And it worked now!

GRIFFIN INDUSTRIES gave a hand out to the clients:



A new revolution in construction. Take a look at the hottest tool in construction. At last a lite in a plumb bob. How does it work? Easy. Just like any other plumb bob. Hang it. Lite comes on. Take it down. Lite goes out. No guessing where the point is. Point is transmitted by lite. 32 oz. Solid Brass **Plumb Lite**. Two (2) hardened steel points that submit lite. Gaged for every occasion of construction. How do we see the Griffin **Plumb Lite**? Easy. Just write or dial

Griffin Industries
P.O. Box 4321
Ontario, CA 917618821
Dial 714 - 947-6888

Below some photos from EBay that shows a very good solution for a display stand to show the two situations for this kind of lighted plumb bob:

Fig. left: light ON, working position

Fig. right: light OFF, rest position



The hole in the tip. There was also produced a BRASS TIP!



Wooden box with batteries



6. PRICES

In October 2012 two GRIFFIN plumb bobs from the collection of Nelson Denny † were sold in the **auction of Martin Donnelly:**

Lot-249

A griffin's patent lighted plumb bob by Griffin Industries, Ontario, California, patented December 2, 1986. In new condition in its original box. **The plumb bob has been signed on the body by the patentee G.E. Griffin.** (ND# 748)



Length: 9.000in.

Condition: FINE

U.S. Patent No.: [4625428](#)

Estimate: \$125.00 - \$250.00

Realized price: \$149.00

Auction: October 27, 2012 in Indianapolis, IN

This signed by the inventor plumb bob (above) was cheaper than the unsigned (see result below) ©

Lot-685

A Griffin's patent lighted plumb bob by Griffin Industries, Ontario, California, patented December 2, 1986. Marked "Patented pending"

Length: 7.500in.

Condition: FINE

U.S. Patent No.: [4625428](#)

Estimate: \$100.00 - \$200.00

Realized price \$184.00

Auction: October 27, 2012 in Indianapolis, IN



\$125 + s/h on EBay



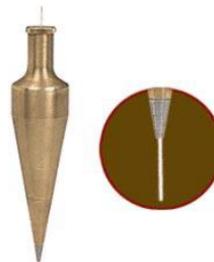
\$57 + s/h on EBay 2010



On http://www.artistcraft.com/products/Tools/Measurement_Alignment_Tools/192

the Griffin is offered since more than 5 years for \$99.95

32oz. Brass Plumb Bob



Catalog Number:

- 80032

Features:

- Solid brass with replaceable hardened steel point

Price:

- \$99.95

I bought my first one in Oct. 2010 from the States for \$63 + shipping + tax= \$126

7. SOMETHING TO SMILE ABOUT

I found these pictures 2006 on EBay 7420745029
“PLUMB BOB IN BOTTLE” marked 1911



Usually we know the SHIP IN THE BOTTLE
(Wikipedia)



8. REMARKS

This is an article of the monthly published WOLF'S PLUMB BOB NEWS that is sent on demand as PDF-file attachment by email. FREE.

You can see all former publications on the website

www.plumbbobcollectors.info

On subpage “download publications”. or on page “WHAT'S NEW?”

Remarks and contact by email: plumbbobwolf@t-online.de

Enjoy it

Wolf

Ps. For the members of our group **the whole world turns around the plumb bob** as shown in our logo right. ☺



Logo of the International
Plumb Bob Collectors
Association IPBCA