Dear Fellow Collector,
Dear reader of the PLUMB BOB NEWS,
As always, I am searching for new material and information associated with plumb bobs. Please feel free to share new photos, catalogs, articles or stories of a personal nature. I welcome input from fellow collectors!

Wolf

MECHANIZED PLUMB BOBS; KRUSE’S RETRACTO BOB (USA)
and GREEN’S LINE WINDING PLUMB BOB (UK)

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1. INTRODUCTION
I have only a few mechanized plumb bobs (with springs, reels or gear boxes) in my collection. They are rare and usually very expensive, but at the end of last year, I acquired two interesting plumb bobs of this type.

KRUSE RETRACTO BOB:
In October, I received a call from a man in Louisiana, who received the Retracto Plumb bob (left) from his brother in California. The plumb bob and the original tin box in which it was sold, along with instruction sheet for assembly, were in nearly unused condition. I have only encountered three other Kruse Retracto plumb bobs during the past 20 years.
One was in the collection of my friend Riccardo Chetoni in Pisa, Italy and one offered on eBay in 2003 (I did not win it!) with the third in Nelson Denny’s collection (his inventory #671) and sold at MJD auction March 2013) for $450. It was without the tin box and without the instruction sheet.

GREEN’S LINE WINDING PLUMMET:
I won the Green’s Line Winding Plummot plumb bob (right) on an eBay auction from England. Nelson Denny also was the only other collector I knew who owned this one (his inventory # 633). Based on my lack of other sightings of this specimen, I assume it is rare, as well. It is also known as.”IN – OUT” plumb bob.

MY CONCLUSION after I wrote this newsletter and made some tests (assemble, disassemble, wind and unwind …) with both plumb bobs: They are very interesting for a COLLECTOR, but NEVER for a WORKER. He would let it in his tool box after a short time. Perhaps that is the reason why they are not produced in big quantity.

plumbbobwolf@t-online.de
2. **KRUSE’S RETRACTO BOB**

1962 (USA)

Nelson Denny † had one of these patented plumb bobs (from 1962) in his collection. Thanks to Nelson for the pictures of his plumb bobs #671 KRUSE. See fig. above.

Similar to the KRUSE but different is the CURRY plumb bob. (1906 USA). The patent is 50+ years older. Photos ND. See fig. below and patent drawing next page.
Let us start with the inventor MELVIN S. KRUSE 9525 Holbrook, Pico Riva, Calif. I found 3 patents from him concerning plumb bobs.

- **US2,849,805 KRUSE 1958**
  RETRACTABLE PLUMB BOB

- **US3,064,356 KRUSE 1962**
  RETRACTABLE PLUMB BOB

- **US3,284,914 KRUSE 1966**
  LINE-RETRIEVING PLUMB BOB

For my plumb bob the 1962 patent is the base but with parts (position of the guiding pins) of the 1966 patent.
It was very hard for me to read and to understand the KRUSE patents, because Kruse describes every detail very exactly (8 columns in every patent => 24 columns fine print).

So I will pick up some points only to explain the system. The winding mechanism can be **inside** or **outside** of the plumb bob.

The friction member 28 may be a generally circular band of spring steel of a width to extend completely across the chamber 12. It commences and terminates in rounded shoulders 30 and 39 located adjacent the line-receiving opening 19 in the triangular portion 16 of the chamber. These shoulders partially encircle closely

In the first patent from 1958 he shows his winding mechanism attached to a common American “carrot” shaped plumb bob:

In his latest patent the line was guided (over the pins 31 or 57/58) in another way and the spiral spring was working right instead of left. The friction member 51 is simpler than before. The pins have other positions.

When I guide the line as shown in the patent drawing left, the friction is too high and I can’t pull the line out.

So I guide it as shown in the photo right. **Now it works.**
Some pictures from my collection with the tin box. It is 6 ½ in high with a 2 in diameter. Even when the patent number US3,064,356 from 1962 is shown, this plumb bob has the friction member and the position of the pins from the 1966 patent US328,491,4. It was too expensive to modify the moulds and they only modified the position of the pins. It would be nice to know if there exists a KRUSE with the pin position of the 1962 patent.
DO YOU HAVE ONE?
Some explanations about the history, advantages and disadvantages of this type of plumb bobs from the different Kruse patents:

In his last patent he lists the disadvantages of his former inventions:

My invention relates to plumb bobs and more particularly to a retractable plumb bob or line retriever.

Prior retractable plumb bobs have included springbiased reels journaled within a housing, the biasing action of a wind-up spring being resisted by a mechanical locking device. As a consequence they have never gone into wide use because, among other reasons, of the inconvenience in withdrawing the line to a desired position and then locking it by a locking means which usually requires grasping the housing in one hand and actuating the locking device with the other.

It is an object of the present invention to eliminate this inconvenience and to provide a plumb bob which is stable at substantially any position of withdrawal of the line without the necessity of using a mechanical locking device. In this connection, it is an object of the invention to devise a plumb bob in which there is a unique frictional relationship between the line and a friction wall, typically a structure in which the friction wall has an outwardly facing friction surface removed sidewardly from the wound line on the reel, the line frictionally engaging such friction surface as a function of the weight imposed on the line by the suspended plumb bob. If it is desired to shift the bob to another elevation, it can be withdrawn against such friction or lifted to relieve the friction and permit the spring to wind the reel to keep the line taut. It is an object of the invention to provide a simple structure of this character.

My invention relates to plumb bobs and more particularly to a retractable plumb bob or line retriever.

Prior retractable plumb bobs have included spring-biased reels journaled within a housing, the biasing action of a wind-up spring being resisted by a mechanical locking device or a frictional relationship between the line and a friction wall. Much inconvenience has been caused by the necessity of manually actuating the mechanical locking device when the plumb bob is in a desired position. The lack of effectiveness in the frictional relationship has often resulted in the plumb bob slipping from a desired position and has created a need for a more effective method of securing a plumb bob in a selected position.

It is an object of my invention to overcome this inconvenience and lack of holding effectiveness by providing a plumb bob structure which will remain in a desired position upon withdrawal of the line.

An object of my invention is to provide a retractable plumb bob structure having a new and better frictional relationship between the line and a friction wall by arranging the friction wall to commence and terminate in rounded shoulders adjacent a narrow line-receiving opening in the housing.
Fig. right:
Name on the back of the instruction sheet may be the owner. ????
Fig. below: The instruction sheet

RETRACTO BOB

INSTRUCTIONS FOR ASSEMBLING

1. To Change or Replace Line When Frayed or Broken

Unscrew cap and point. While separating body, hold inner spool with thumb and allow spool to unwind slowly in order to prevent spring back-lash which may break the spring. Lift spool out and replace line with 45 lb. test braided nylon 12 ft. long. Do not disassemble spool caps. * Thread one end of line through one hole and then the other hole of spool cap and tie knot which must remain on the inside of spool cap flange. Wind line in the same direction of arrow as marked on drum. Place the two pins and the steel-tempered friction band in the half section stamped "RETRACTO BOB". Check installation of friction band for proper seating in recess with the opening of band to be opposite of the pins at the top. Before installing spool back in body, apply a tiny drop of light oil at each end of center pin to lubricate spool bearings. Thread loose end of line through threaded cap and form a loop and tie a knot. Place spool in body with center pin engaged in square retainer. Turn spool with line clockwise four times to create spring tension. Pull out about one foot of line. Hold tension of spool with thumb. Wind line once around the lower pin and friction band and around upper pin and aline with center groove at the top. Finish body assembly with cap and point.

2. To Repair Broken Spring.

Unscrew cap and point. Lift spool out and remove spool caps by firmly grasping opposite caps of spool with pliers and turn slightly. Pull out about twelve inches of the spring center. Trim-taper back end of spring and insert in slot of center pin so that it projects about ¼ through the center pin and bend over. This can be done once only without annealing the spring. Then it can be repeated several times over providing the end of the spring is annealed by a gas flame until a cherry-red color is attained about one inch in length and air-cooled. After the spring is installed in the center pin slot, reassemble caps by pressing the caps evenly and securely with pliers. Complete assembly by following the marked steps above. (*).

If the instructions above are followed carefully, no difficulty will be encountered in the smooth, positive operation of the bob. In the event you are unable to put back bob in operation please enclose money order or check to cover return postage with your bob to save C.O.D. charges. No service charge for assembling your bob is necessary.

Mail to:
M. S. Kruse & Son
Box 547
Pico-Rivera,
California
3. **CITED PATENTS IN THE KRUSE PATENTS:**
(The patent office searches for former inventions)

**US599178 J. GWILLIAM 1898 SELF WINDING PLUMB BOBS**

![Patent Diagrams](image)

The invention further aims to construct a self-winding plumb-bob that will be extremely simple in its construction, strong, durable, comparatively inexpensive to manufacture, and effectual in the performance of all its functions.

Briefly described, the invention consists of the bob formed in two sections, each section being recessed and having arranged therein a drum, to which the line is attached, said drum being operated by means of a spring to return the cord onto the drum after the weight on the line or cord has been relieved, and in describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like letters of reference indicate similar parts throughout the several views, in which—

**US1043295 BURNS 1912 PLUMB BOB:**

To all whom it may concern:

Be it known that I, ALBERT E. BURNS, a subject of the King of Great Britain, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Plumb-Bobs, of which the following is a specification.

This invention has for its object to provide a novel and improved holder for plumb-bobs, whereby the line is effectually prevented from getting tangled up and knotted.

The invention also has for its object to provide the holder with a reel or spool on which the line is wound, together with improved means for controlling the paying out of the line.

A further object of the invention is to provide a holder of the kind stated which is simple and compact in construction and which can be easily carried in the pocket.

Another object of the invention is to provide a guide which centers the string.

With these objects in view, the invention consists in a novel construction and arrangement of parts to be hereinafter described and claimed, reference being had to the accompanying drawing, in which—
PATENTANSPRUCH:

Senkblei, gekennzeichnet durch eine Hülse, enthaltend eine Aufwickelvorrichtung für die das Gewicht tragende Schnur, sowie eine Führungsvorrichtung für die Schnur.

To all whom it may concern:

Be it known that I, SAMUEL W. WILCOX, a citizen of the United States, residing in Mendon, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Plumb-Bobs, of which the following is a specification.

This invention relates to an improved construction whereby the plumb-cord may be wound upon a reel, so as to prevent tangling or knotting, and may be unwound to any length desired and the reel held stationary at the desired point, and whereby the bob may be centered in any desired hole, countersunk or otherwise.
To all whom it may concern:

Be it known that I, HILL M. CURRY, a citizen of the United States, residing at California, in the county of Washington and State of Pennsylvania, have invented a new and useful Plumb-Bob, of which the following is a specification.

This invention relates generally to plumb-bobs and more particularly to one having a spring-actuated cord-winding mechanism arranged therein whereby the said cord is unwound or reeled within the body of the plumb-bob when not employed for suspending the said plumb-bob.

The object of the invention is to provide a plumb-bob embodying these characteristics which shall be simple in construction and efficient in operation; and the invention consists in the novel features of construction and combination hereinafter fully described, and pointed out in the claims.
US1357270 BUSH 1920 AUTOMATIC PLUMB BOB:

Below some photos of this “lightning” plumb bob from the Nelson Denny collection (his #461)

BUSH invented in 1938 also another automatic PB; patent number US2,136,072
4. **GREEN’S LINE WINDING PLUMB BOB (UK)**

I know two of this type: (If YOU know more, please let me know.)

One from the collection of Nelson Denny † (ND) and the other one I (WR) could buy in 2013 from England.

When I compared the data and the details of both, I found they are different.

This type belongs to the “IN-OUT” plumb bobs. Inside it is hollow for the mechanism. The line is guided through two holes from inside to outside and back to inside to guide it from the vertical direction to the horizontal storage on the reel, using this “deviation” as a brake.

Here are the facts:

<table>
<thead>
<tr>
<th></th>
<th>Nelson Denny</th>
<th>Wolf Ruecker</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>4 ½ in</td>
<td>3 ¼ in</td>
</tr>
<tr>
<td>Diameter</td>
<td>2 ½ in</td>
<td>1 ¾ in</td>
</tr>
<tr>
<td>Weight</td>
<td>16 oz</td>
<td>10 oz</td>
</tr>
<tr>
<td>Owner</td>
<td>H.H.&amp; Co.</td>
<td>G. Batchelor</td>
</tr>
<tr>
<td>#</td>
<td>20</td>
<td>3 (or 8)</td>
</tr>
</tbody>
</table>

Text on upper part:

- **GREEN’S LINE WINDING PLUMMET PATENT APLD FOR LONDON** *16 OZ 20 HH & CO*

Text on lower part:

- IN → G.BATCHELOR
- OUT IN →

Unfortunately I could not find the patent in the British Patent Office. 😞

I am sure he never got one.
It was not easy to make photos from the text on the spherical body. Below photos from my 10 oz plumb bob.

To wind the line in or out you hold the body with one hand and to turn the tip with the other hand.
5. SOMETHING TO SMILE ABOUT

Last year I got an email from the UK: 😊

“Dear Plumb Bob Society: I recently acquired a plumb bob on a second-hand market stall which on closer inspection has a couple of unusual features. I wonder if you have seen one like this before and could explain why it is like this. Three photos are attached. As you can see, the bob unscrews into three sections. The central stem is drilled to allow passage of the string and there is a large hole at 90 degrees to allow space for the knot holding the string into the stem. However, that large hole is threaded, rather than just being a drilled hole. The thread is the same pitch as that on the main body of the bob, by which the tip of the bob attaches to it. To illustrate this I have screwed the main body into the hole in one of the photos. The other strange feature is the small hole drilled sideways through the tip of the bob. This can be seen in the first photo of the assembled plumb bob. Any suggestions you can make as to the special reason for these features will be very gratefully received and I thank you in advance for your kindness in looking at the problem.

With best wishes,

Marcus”

My answer:

“MEANWHILE I ASKED SOME FRIENDS FOR THEIR OPINION AND IF THEY HAVE A SOLUTION. ALL ANSWERS ARE NEGATIVE. I KNOW THOUSANDS OF DIFFERENT PLUMB BOB SHAPES BUT I NEVER SAW THIS ONE: MY OPINION IS: THIS IS NOT A “BORN” PLUMB BOB, THAT MEANS IT WAS NOT PRODUCED TO "LIVE" AND WORK AS A PLUMB BOB. BUT AS YOU KNOW EVERY PIECE THAT YOU CAN FIX TO A LINE CAN BE USED AS A PLUMB BOB. 😊

THE REASONS WHY PEOPLE USE SUCH OTHER PIECES (TOOLS) AS PLUMB BOB ARE DIFFERENT:

- SOME TAKE IT, BECAUSE THEY HAVE NOTHING ELSE IN THEIR TOOL BOX.
- SOME TAKE IT, BECAUSE THEY LIKE THE SHINING METAL OR THE EXOTIC SHAPE.
- SOME WILL SAVE MONEY AND WILL NOT BUY EXPENSIVE PLUMB BOBS.
- THERE MAY BE A LOT OF OTHER REASONS

LET’S COME BACK TO YOUR ITEM: IT HAS (NEARLY) ALL PARAMETERS THAT YOU NEED FOR A REAL PLUMB BOB

- POINT TO FIX A CORD/LINE, (IN THIS CASE THE VERTICAL HOLE IN THE STEM WITH THE POSSIBILITY TO HIDE THE KNOT INSIDE
- NEARLY SYMMETRICALLY SHAPE (EXCEPT THE BIG VERTICAL HOLE THAT PERHAPS IS NOT SYMMETRICAL, ON ONE SIDE ONLY)

A POINT, EVEN WHEN IT IS NOT VERY SHARPE (OTHERWISE YOU DON’T NEED A POINT FOR A PLUMB BOB; THERE ARE A LOT "FLAT BOTTOM" PLUMB BOBS THAT HAVE NO TIP/POINT)

WHAT’S BOTHER ME IS THE CONSTRUCTION OF THE DIFFERENT PARTS.

NO MAKER OF A PLUMB BOB WOULD MAKE ADDITIONAL THREADS AND HOLES THAT ARE NOT NECESSARY FOR THE USE OR THE OPTIC. ALSO THE VERTICAL HOLE IS TOO BIG FOR ME. THE DIAMETER SHOULD ME NEARLY THE SAME AS THE DIAMETER OF THE CORD. AND FOR SUCH A PLUMB BOB YOU NEED A THIN LINE.

MYSTERY FOR ME IS ALSO THE SMALL HORIZONTAL HOLE IN THE TIP AND THE FLAT PART ON THE TIP.

WE KNOW SUCH HORIZONTAL HOLES IN NEW AMERICAN PLUMB BOBS, TO PUT IN A NAIL OR WIRE TO UNSCREW THE REPLACABLE TIP. BUT THIS IS NOT THE SAME HERE.

MORE ABOUT TIPS OF PLUMB BOBS SEE IN NEWSLETTER 2008-3 “CAPS AND TIPS OF PLUMB BOBS”

FOR ME IT COULD BE A KIND OF HANDLE OR SOME KIND OF ORNAMENT HANGING LIKE A PLUMB BOB OR UPSIDE DOWN.

I WILL HOLD IN MIND THIS SPECIAL PIECE AND PERHAPS I WILL FIND A SIMILAR TOOL IN THE FUTURE.

SORRY THAT I COULD NOT FIND A BETTER ANSWER

WOLFGANG”
Some weeks later Marcus sent me the funny solution:

"Dear Wolfgang:
I had not expected to identify this mystery object so soon, but an acquaintance put me on the right track. It turns out that you were absolutely correct. It was not made primarily as a plumb bob, but was made so that it could be mistaken for one and thereby disguises its real purpose!
My acquaintance, who obviously is far more worldly-wise than me, says that it is a pipe for smoking marijuana. He even found an image of it on the web at:


All good wishes,
Marcus"

I searched in the www for some other pictures of this marijuana pipe and found that there are a lot of shapes looking like a plumb bob! 😊
They are offered as “mushroom pipe”, “Brass Bullet Pipe” or “small-brass-pipe-for-marijuana” for a price of 3 GB Pounds or $8 to $16 in the U.S.A. and Canada.
That is less than a brass plumb bob would cost! 😊

6. REMARK
DEAR READER OF THE PLUMB BOB NEWS,
DEAR FELLOW COLLECTOR,

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 sub page “download publications”.

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

Enjoy it

Wolf Ruecker